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John Chandler
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A
COMPENDIOUS SYSTEM
OF THE
THEORY AND PRACTICE
OF
MODERN SURGERY,

ARRANGED IN A
NEW NOSOLOGICAL AND SYSTEMATIC METHOD,

Different from any yet attempted in SURGERY.

IN THE FORM OF A DIALOGUE.

BY HUGH MUNRO, SURGEON.

PRESIDENT OF THE CHIRURGO-PHYSICAL AND EXTRA-
ORDINARY MEMBER OF THE AMERICAN PHYSICAL
SOCIETIES OF EDINBURGH.

Qui dubitat, qui sæpe rogat, mea dicta tenebit ;
Is qui nil dubitat, nil capit inde boni.

L O N D O N :

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TO
ALEXANDER MONRO, M. D.

PROFESSOR OF ANATOMY AND SURGERY,
IN THE UNIVERSITY OF EDINBURGH.

S I R,

AUTHORS in general are fond of having great names prefixed to their labours. The distinguished rank you hold in your profession renders you, therefore, a proper patron for such an undertaking as this. The candour and liberality of sentiment for which you are so eminently conspicuous in the medical world, encourages me to lay these sheets before you. Their meeting with your approbation will fully compensate for the labour bestowed on them.

Hoping

Hoping this feeble effort may not seem unworthy of your attention, and that it may contribute somewhat to the advancement of surgical knowledge.

I am,

SIR,

With the utmost regard,

Your very humble Servant,

H. MUNRO.

P R E F A C E.

IT is somewhat surprising, that amongst the many Systems of Surgery that have made their appearance in the world, so very few have been attempted to be arranged into a Systematic Order of Classification. This defect seems to have proceeded either from an opinion, that no such arrangement was necessary, or from the idea, that it was impracticable, in this branch of science at least.

That the former of these opinions is erroneous, will be readily granted by every person who reflects for a moment on the great advantages of order and method in other branches of science; by which not only much circumlocution and trifling

tautology are avoided, but the principles of the science itself more easily, as well as more firmly, impressed upon the mind of the student; who without these is apt to be disgusted at the maze of confusion in which he is otherwise unavoidably involved. And the latter idea is equally groundless from the excellent attempts that have been made towards a methodical arrangement of those diseases that fall properly under the care of the surgeon, by the celebrated SAGAR and SAUVAGES.

The Author of this Work hopes he shall not be accused of presumption in endeavouring to improve upon the plan of these great men. The discoveries and improvements in modern surgery have of late been so numerous and important, as to render some alteration in the arrangement of Chirurgical Diseases not only justifiable, but absolutely necessary. How far he has succeeded in making this attempt the public

lic will determine. While he has endeavoured to reduce Surgery to a regular system he has adopted the method that appeared most natural, and at the same time studied to express himself in terms as explicit as possible. For, although, in arranging the different Orders and Genera, he could not avoid the formation of new words, yet he humbly hopes these will be found more apt to accelerate than to retard the progress of the student; as they are not only free from ambiguity, but comprehensively expressive of the meaning affixed to them. And in describing the different species of each Genus, as well as the principal varieties of each Species, he has given them a complete definition and essential character, a concise and accurate view of their different symptoms, diagnosis, remote prædisponent and proximate causes, with their prognosis, and the best and most effectual method of cure, as collected from
the

Surgeons-Hall, or before any of the senior surgeons, by qualifying them to give distinct and proper answers upon every subject in surgery. Many apothecaries too, who, though they have not been regularly bred, are nevertheless often consulted by their patients, and who cannot be supposed to have time to peruse larger works, it is presumed, will find their account in consulting this System. For the benefit however of such as have leisure and inclination to consult larger works upon particular subjects, and in order to facilitate their progress in their study of surgery, the synonyma of every species and variety of disease adopted by the most celebrated authors are subjoined as notes, in the order of their arrangement.

In a word, the Author humbly hopes the work will be found useful to all who wish to be possessed of a complete, concise,
and

and comprehensive system of modern surgery, as he presumes it exhibits in a very small compass a more extensive knowledge of the Art of Surgery than can be found in any publication of its size that has yet made its appearance in this country.

ADVERTISEMENT.

On Account of the unavoidable necessity of the Author's absence from the Press, and his being deprived of the opportunity of seeing the work until the whole was thrown off, a few errors have unfortunately crept in. A work of this kind having a number of technical terms the Author humbly hopes a candid and generous public will make the necessary allowance, and observe the Errata at the end.

Spec. 8.

Gold
Silver
Copper

Iron
Lead

Spine
Spine

Iron

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Iron

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CLAVIS CLASSIUM, &c.

I. TUMORES.

Ord.	Gen.	Spec. &c.
I. ACUTUS.	I. SUPPURANS.	Phlegmone Mastodynia Inflammatio Testiculi Cynanche Tonfilaris Hæpatitis Parulis
	II. PHLOGISTICA.	Erysipelas Pernio Paronychia Ophthalmia Phrenitis Pariphimosis Var. §. Phimosis
	III. FLATUOSA.	Emphysema Tympanites
II. ENCYSTIS.	IV. PURIFORMIS.	Abcessus A. Antri Maxillaris B. Hepaticus C. Lumbaris D. Pulmonicus Staphyloma Hypopyon Empyema
	V. HYDROPS.	Hydrothorax Afcites A. Anafarea Hydrocele Hydrops Sacci Herniosi Afcites Funis Spermatici Hydrops Ovarii Hydrophthalmia Hydarthus Hydrops Bursæ Mucosæ Var. §. Ganglion Spina Bifida
	VI. SANGUINEA.	Aneurisma A. Spuria B. Varicosa Varix A. Cirfocele B. Thrombus C. Hemorrhoids Hematocoe Scroti Pectoralis Oculi Articuli
III. ECTOPIA.	VII. PULTACEA.	Atheroma Meliceris Steatoma Ranula
	VIII. HERNIA.	Bubonocoele Var. A. Epiplocele B. Splenocoele C. Enterocoele D. Cystocoele E. Hepatocoele F. Hyterocoele G. Hernia Congenita Hernia Ventralis Var. eadem ut in Bubonocoele Merocele, Var. eadem ut in Bubonocoele Exomphalocoele Hernia ovarialis Ischiatocele Elytrocele
	IX. PROLAPSUS.	Hyteroptosis Exania Paraglossæ Hypostaphile Exophthalmia Ectropium Entropium
IV. CHRONICUS.	X. LUXATIO.	Offium Capite Nasi Offis Maxillaris Offium Capitis et Colli Offis Costæ Offis Humeri Ulnæ Offium Carpi et Digiti Offis femoris Patellæ Tibia et Fibula Offium Maleoli & Calcis.
	XI. GLANDULOSA.	Scirrhus A. Sarcocoele B. Mammæ C. Prostatae Glandis D. Uteri E. Linguae F. Labii inferioris G. Bulbi oculi Scrophula Var. A. Articularis Bronchocoele
	XII. CARNEA.	Polypus Nasi Uteri Meati Auditorii Sarcoma Var. A. Hordeolum B. Ptergium C. Epulis D. Tonfilaris E. Fungus

II. APOCENOSES.

Ord. IV. Continued.	Gen.	Spec. &c.
	XIII. CALLOSA.	Condyloma Clavis Verruca
	XIV. OSSEA.	Exostosis Nodus Spina ventosa Spina genu articuli
I. HEMORRHAGIA.	XV. TRAUMATICA.	Partita
	XVI. SYMPTOMATICA.	Epistaxis Hæmoptysis Hæmatemasis Hæmaturia
	XVII. PURIFLUXUS.	Simplex Ægilops Ulcusculæ oris Otorrhœa Sinus Fistula A. Ani B. Perinæi C. Lachrymalis
II. ULCUS.	XVIII. VISCIDA.	Scrophulosa Syphilitica
	XIX. ICHORA.	Cancer Caries § Odontalgia
	XX. SANIES.	Scorbutus Ozœna
III. SECERNENDA.	XXI. SERIFLUXUS.	Coryza Epiphora Eneurefis
	XXII. MUCOSÆ.	Gonorrhœa virulenta Pyuria

III. VITIA.

I. DIALYTICA.	XXIII. CRUENTA.	Vulnus A. Incisum B. Punctura C. Laceratura D. Contusura E. Morfura F. Sclopetoplaga Fractura composita A. Thlasis
	XXIV. INCRUENTA.	Fractura Simplex Offium Nasi Facies Thoracis Spinæ Scapulæ Humeri Ulna radius, &c. Fractura Offis Femoris Patellæ Tibia Fibula, &c.
	XXV. CUTANEUS.	Contusio Ruptura
II. OBSTRUCTIO.	XXVI. ESCHARA.	Excoriatio Rhagis
	XXVII. NATURALIS.	Combustura Sphacelus
	XXVIII. CONSTRICTURA.	Lagocheilos Hypospadiæos
III. DISTORTIO.	XXIX. VERSICOLOR.	Suffocatio A. Sub. aqua Aglutitio Dysfecœa Ischuria
	XXX. IMPERFORATUS.	Cataracta Leucoma
	XXXI. CONCRETIO.	Imperforatus anus Imperforatus meatus auditorius Carens ore Nafus imperforatus Hymen imperforatum Dentitio
III. DISTORTIO.	XXXII. MUSCULOSA.	Ancyloblepharon Synizefis Adhesio ab urethritica Ancylloglossum Dactylion
	XXXIII. OSSIFICA.	Caput obstipum Strabismus Vacillatio Lordosis Gibbositas Distortio offium pelvis

DEFINITION

OF THE

CLASSES, ORDERS, AND GENERA.

C L A S S I.

T U M O R E S.

WHEN the size of any part of the animal body is increased by any cause beyond the natural state.

ORD. I. ACUTUS.

Tumours rapid in their growth, for the most part attended with pain, and requiring an immediate cure.

GEN. I. SUPPURANS.

Tumours readily running into suppuration.

GEN.

GEN. II. PHLOGISTICA.

Inflammatory tumours which can seldom or never be brought into a proper state of suppuration, and whose resolution must in every case be attempted, terminating in a thin acrid discharge of serum, not convertible into proper pus.

GEN. III. FLATUOSA.

Tumours containing chiefly air.

ORD. II. ENCYSTIS.

Tumours completely surrounded with a covering or cyst.

GEN. IV. HYDROPS.

Encysted tumours containing water.

GEN. V. PURIFORMIS.

Encysted tumours whose contents are pus.

GEN. VI. SANGUINEA.

Encysted tumours whose contents are blood.

GEN. VII. PULTACEA.

Encysted tumours containing matter of a pul-
taceous consistence.

ORD. III. ECTOPIA.

Tumours occasioned by a change of situation of some parts of the solids of the body.

GEN.

GEN. VIII. HERNIA.

Tumours occasioned by a displacement of some parts of the bowels through some of the outlet passages of the abdomen, and covered with a partial cyst of the peritoneum.

GEN. IX. PROLAPSUS.

Tumours occasioned by a naked displacement of any part visible to the eye, and without any partial covering.

GEN. X. LUXATIO.

A displacement of the bones occasioning tumour attended with a laceration of ligaments.

ORD. IV. CHRONICUS.

Tumours slow in their growth, not attended with pain, and not running into suppuration.

GEN. XI. GLANDULOSA.

Tumours chiefly affecting the conglobate glands.

GEN. XII. CARNEA.

Tumours of a fleshy consistence.

GEN. XIII. CALLOSA.

Tumours of a firmer consistence than flesh, and softer than bone.

GEN. XIV. OSSEA.

Tumour of the nature of bone.

CLASS

CLASS II.

APOCENOSES.

Morbid discharges of any kind of fluid from the body in greater quantity or oftener than usual.

ORD. I. HEMORRHAGIA.

Discharges of blood.

GEN. XV. TRAUMATICA.

Discharges of blood occasioned by some local cause.

GEN. XVI. SYMPTOMATICA.

Discharges of blood occurring in different parts of the body and not arising from a local cause.

ORD. II. ULCUS.

Discharges of various kinds of matter different from blood, from old wounds, &c.

GEN. XVII. PURIFLUXUS.

Ulcers discharging pus.

GEN. XVIII. VISCIDA.

Ulcers discharging tough matter thicker than pus.

GEN.

GEN. XIX. ICHORA.

Ulcers discharging a thin red acrid matter corroding the neighbouring parts.

GEN. XX. SANIES.

Ulcers discharging matter of a thin greenish acrid nature.

ORD. III. SECERNENDA.

Discharges from increased secretions.

GEN. XXI. SERIFLUXUS.

Secretions of a serous nature.

GEN. XXII. MUCOSA.

Secretions of a mucous nature from mucous surfaces.

CLASS III.

VITIA.

Faults arising from a change in the habit, number, order, or other qualities of the solids appearing on the surface of the body so as to be visible to the eye or internally, impairing the general health, occasioning deformity, and sometimes attended with death.

ORD. I. DYALITICA.

Arising from a loss of continuity.

GEN.

GEN. XXIII. CRUENTA.

Loss of continuity attended with an effusion of blood and a division of the corresponding integuments.

GEN. XXIV. INCRUENTA.

Loss of continuity not attended with an effusion of blood or wound in the corresponding integuments.

GEN. XXV. CUTANEUS.

Loss of continuity not deeper than the skin.

GEN. XXVI. ESCHARA.

Division of a part in the form of an eschar.

GEN. XXVII. NATURALIS.

Natural loss of continuity.

ORD. II. OBSTRUCTIO.

An impediment to the reception or discharging of any kind of matter into or from the body.

GEN. XXVIII. CONSTRICTURA.

When the diameter of any of the natural passages is diminished by spasmodic affections, &c.

GEN. XXIX. VERSICOLOR.

When obstruction is occasioned merely from a change of colour.

GEN. XXX. IMPERFORATUS.

When any of the natural passages are imperious from birth.

GEN. XXXI. CONCRETIO.

When parts have grown together in consequence of inflammation.

ORD. III. DISTORTIO.

Having a bend to one side, occasioning deformity either in the soft parts or in the bones.

GEN. XXXII. MUSCULOSA.

When the deformity is owing to muscular contraction.

GEN. XXXIII. OSSIFICA.

When a deformity is occasioned from a fault in the bones.

CLASS I.

TUMORES.

ORD. I. ACUTUS.

GEN. I. SUPPURANS.

PHLEGMONE*

Q. 1. *What is a Phlegmone?*

A. It is a spheroidal tumour, attended with heat, redness, pain, quick and hard pulse, tension, and a degree of pyrexia †, when it is considerable; upon extracting blood it always shews an inflammatory crust.

Q. 2. *In what manner does Phlegmone terminate?*

* Phlegmone, *Linnæus, Sagarus, Sauvagesius, et Cullenus.*

† Febris Inflammatoria, *Hoffman.* Morbus acutus febrilis, *Boerhaave.* Morbus febrilis phlogisticus, *Linnæus.*

C

A. Upon

A. Upon the whole of the symptoms, (Q. 1.) subsiding, and the tumour discussing. It is said to terminate by *resolution*, when the symptoms continue for some time to advance, and a quantity of serum is thrown out by the inflamed vessels; which liquor is again converted into a mild white thick matter, named Pus. The affection is then said to terminate by SUPPURATION. But when the symptoms still continue to advance, and the tumour shows no tendency either to resolution or suppuration, and the tone of the part at last comes to be destroyed, GANGRENE is said to take place. When a portion of the gangrenous part begins to separate from the sound, SPHACELUS is said to take place. When neither of these occur, and a gland has been inflamed for some time, an indolent hardness ensues, and the affection is said to terminate in SCHIRRHUS.

Q. 3. *How is Phlegmone distinguished from Erysipelas?*

A. In Phlegmone the tumour is more circumscribed and prominent; it proceeds deeper in the skin: its contents, when
sup-

suppuration takes place, are generally pus, whereas in Erysipelas the discharge is thin and acrid, and the swelling more diffused and superficial.

Q. 4. What are the remote causes of Phlegmone ?

A. All stimuli, whether chemical or mechanical, acting either on the fluids or solids of the body, applied either externally to the surface of the body, or taken internally. A plethoric state of the system at the time may, in every case, be considered as a predisposing cause.

Q. 5. What is the proximate cause of Phlegmone ?

A. The proximate cause of Phlegmone is that of inflammation in general. A variety of theories have been advanced to explain it ; such as, a PARTIAL DEBILITY of the part, which, being in a weaker state than the rest of the system, a congestion of blood takes place, from which the tension, redness, and pain, proceed. Another theory has been given, viz. that a LENTOR of the FLUIDS

takes place, and occasions an obstruction of the vessels of the part. Others again alledge, that it depends on an *ERROR LOCI*; that red globules are pushed forwards in vessels intended only to convey serum. Others again imagine it to be owing to a *SPASMODIC CONSTRICTION* affecting the extreme vessels: all of which theories are liable to many objections. The method of cure, however, seems to correspond better with the latter.

Q. 6. What Prognous can be given of Inflammation in general?

A. The Prognous must be always more or less favourable, in proportion to the extent and situation of the Inflammation; and to its terminating either by resolution or suppuration. Any of these terminations, occurring on the surface of the body, a favourable prognous may be given, particularly if it is not extensive, and the degree of pyrexia moderate. But, when the bowels are any way inflamed, or when the symptoms run so high as to threaten mortification, even on the surface of
the

the body, the Prognous should be always guarded.

Q. 7. What is the most proper method of treating Phlegmone?

A. The mode of treatment must be that of inflammation in general; to endeavour as much as possible, to effect a resolution, (Q. 2.) by a strict antiphlogistic regimen, to promote suppuration, (Q. 2.) if we fail in discussing it; and, when we fail in both, to endeavour to mitigate or obviate the symptoms of gangrene, from proceeding to too great a heighth.

Q. 8. What are the principal articles of the Antiphlogistic Regimen?

A. The principal article of it is, a removal of all the remote causes, (Q. 4.) and particularly plethora, which being a predisponent cause, is to be obviated by bloodletting, both general and topical. Stimuli of all kinds, tending to increase the action of the sanguiferous system, or to hurry respiration, are to be avoided; such as the motion of the body, and external heat, instead of this, cooling and

astringent applications to the part are to be used. The posture of the body that employs least of its muscles is to be chosen. Avoiding the stimulus of thirst is particularly necessary, by drinking plentifully of cooling acescents and diluent liquors. Purging also, as it tends to obviate plethora, and to remove costiveness, which in every case must prove stimulant to the system, becomes a necessary article of the antiphlogistic regimen. A vegetable diet is also to be used during the whole course of the affection.

Q. 9. How is the operation of Blood-letting executed?

A. Both surgeon and patient are to be seated in a proper light, when it can be obtained, or when the patient is in bed. When this cannot be procured, proper candles are to be used. Then the vein is to be elevated by producing an accumulation of blood in it, by the application of a proper bandage, to be applied with such lightness as to prevent the blood in the veins from retiring into the heart; but not so strait as to obstruct the circulation in the arteries. An incision is now to be
made

made in an oblique direction, neither longitudinal along the vein, nor directly across it. After the surgeon has placed his thumb an inch and half below the ligature, he is to pass the point of his lancet gradually forward into the vein; as soon as he is sensible, from the want of resistance, that he has got fairly within it, he makes the incision obliquely forward and withdraws the instrument. As soon as the quantity of blood wished for is extracted, the ligature is to be slackened, and the edges of the orifice cleared from any particles of blood that may adhere to the vein. They are to be applied in the closest manner, and retained in that state by a bit of adhesive plaister, or a bandage, until a cicatrice is formed. Topical bloodletting is executed by the application of leeches, as near as possible to the part affected, or by a scarificator, or an instrument with a number of lancets acted upon by a spring. As soon as the wound is made by these, a cup, exhausted of its atmospheric air, applied over the orifices, makes them bleed freely, owing to the pressure of the atmospheric air being taken off.

Q. 10. After Resolution has become impracticable, how is Suppuration effected?

A. To promote a Suppuration, a quite contrary plan must be adopted. The application of external heat, by means of warm poultices, to the part, seems essentially necessary, giving the patient at the same time a full diet, and cordials, if the discharge in attempting a resolution has been considerable. Also rubbing at the same time greasy substances on the surface of the inflamed part, to prevent the admission of the cool air, becomes a necessary article in promoting suppuration.

Q. 11. When the symptoms run high, so as neither to yield to suppuration or resolution, how are the symptoms of approaching Mortification to be mitigated?

A. When the inflammation runs exceedingly high, and no limits have been as yet fixed, so as to determine how far it may proceed, the general symptoms are to be mitigated, by blood-letting. But here great caution is necessary; for when the progress of the inflammation is known with certainty, further evacuations are to be prevented, and
such

such remedies, as tend most powerfully to support the *vis vitæ* are to be attempted; such as wine, a nourishing diet, and as much bark as the stomach can bear, at proper intervals. Opiates are to be likewise used, and the application of topical stimuli to the part, as the volatile alkali. Vegetable acids, have been found to be of service in effecting a separation of the mortified parts, from the contiguous sound parts. As soon as this takes place, the disease acquires the name of sphacelus, particularly if any portion of muscle is separated.

BUBO*.

Syn. INFLAMMATION of the GLANDS.

Q. 12. *What is a Bubo?*

A. It is a suppurating tumour of the conglobate glands in the groin, for the most part arising from venereal virus, carried by the lymphatics to the part affected.

* Bubo, *Sauvagesius*, *Cullenus*, *Sagarus*, *Linnaeus*.

Q. 13.

Q. 13. In what manner are Buboes to be treated?

A. By using a strict antiphlogistic regimen to promote a resolution; particularly by the application of leeches to the hardened gland. When this fails, the tumour has a tendency to suppuration, it is to be encouraged by all the remedies laid down (Q. 10.) for phlegmone. In discussing venereal buboes, the application of mercurial ointment to the lymphatics of the part has a considerable effect.

Q. 14. After Suppuration is completely formed, are we to allow the tumours to burst of themselves? Or are we to open them by the knife, or by caustic?

A. Each of these methods have their abettors. The application of caustic seems to be dangerous, from its chance of meeting with some of the considerable blood vessels, which generally lie contiguous to the bubo, and corroding them. Buboes, when opened by the knife, are said to heal more difficultly, and a scar is generally left behind them.

Allowing

Allowing them, therefore, to burst of themselves, is generally proper, except when the collection is so considerable, as to press upon the neighbouring blood-vessels. In such a case, a small incision may be made by the lancet, so as to allow the contents of the tumour to be discharged, taking care at the same time, to prevent the admission of the external air into the wound, as much as possible. When the edges of the opening grow callous, the application of lunar caustic to them becomes necessary. Mercury, joined with opium, is to be used during the remaining part of the cure.

MASTODYNIA*.

Syn. INFLAMMATION of the BREAST.

Q. 15. In a case of an Inflammation of the Mammæ are we to promote a Suppuration, or attempt a Resolution?

A. In the early stages of the affection, resolution is to be always attempted; but when

* Mastodynia, *Sauvagesius*, *Cullen*. Mastodynia Phlymondes, *Castro*.

the swelling seems to have any tendency to suppuration, a resolution is never to be attempted. The remedies recommended (Q. 7.) for inflammation in general, seem useful in every cure of Inflammation of the Mammæ. Only it is to be observed, that sudden evacuations of blood have a tendency to diminish the milk, if the patient happens to be nursing at the time. Blood, in such cases, is to be extracted in small quantities at a time. The application of cooling saturnine poultices are adviseable. Where suppuration has however taken place, the matter is to be discharged by making an incision in the most depending part of the tumour.

INFLAMMATIO TESTICULI *.

Syn. HERNIA HUMORALES.

Q. 16. *How is Inflammation of the Testicle to be treated?*

A. The remedies recommended for the cure of inflammation in general (Q. 7.) are

* Phlegmone Testiculi, *Riverius*. Gonorrhœa, in Scrotum Dilapfa.

exceeding

exceeding proper in every case of inflamed testicle. When the swelling arises from the matter of gonorrhœa being stopped suddenly by the use of astringent injections, nothing so readily alleviates the complaint, as a return of the discharge, which is promoted by the application of warm poultices to the penis, using also at the same time topical blood-letting.

CYNANCHE TONSILLARIS *.

Syn. INFLAMMATION of the TONSILS.

Q. 17. How is Inflammation of the Tonsils to be treated?

A. The method of cure recommended for inflammation in general (*Q. 7.*) seems equally proper here, particularly topical bloodletting; which may be executed by an instrument invented for scarifying the throat. When resolution cannot be effected by these means, suppuration is to be promoted by the application of warm poultices to the part

* *Cynanche Tonsillaris, Sauvagesius.* Angina, quarta species, *Boerhaave.* *Synanche, Græcor.*

externally, and as soon as suppuration is fully formed by these means, it is to be discharged, by making an incision into the tumour, by the instrument recommended for scarifying the throat; and the sore heals readily by an astringent gargle of alum or oak bark.

HEPATITIS*.

Syn. INFLAMMATION of the LIVER.

Q. 18. How is Inflammation of the Liver distinguished?

A. There is more or less stomachic affection produced. There is also generally a pain in the region of the liver and top of the shoulder, and a yellowness of the skin is perceived over all the body.

Q. 19. How is Inflammation of the Liver to be treated?

A. By the remedies already recommended for inflammation in general. (*Q. 7.*) Mercury

* Hepatitis. *Sauvagesius, Cullenus, Sagarus, Linnæus, & Vogelius.* Febris Intermitteus, *Galen.* Febris Typhoides, *Forest.* Inflammatio Hepatitis, *Lennert.* Dolor Hypochondriæ dextri, *Bonnet.*

also is found to be of considerable service in removing the inflammation. When suppuration is however once formed, it is to be treated as abscess in general.

PARULIS*.

Syn. GUM BOILS.

Q. 20. *What are the causes of Gum Boils?*

A. Cold, external violence, a fit of the tooth-ach and a portion of the jaw becoming carious.

Q. 21. *How are Gum Boils to be treated?*

A. When it arises from a carious tooth, a removal of it becomes necessary, in order to effect a cure. But when the socket is carious, or a portion of the bone itself, suppuration is to be attempted by applying roasted figs to the gums internally, so as to favour the abscess to burst inwardly. In this way exfoliation of the diseased bone takes place more readily, and the abscess afterwards heals in the common manner.

* *Purulis Vogelius, Sagarus. Parulis odontagra, Heister. Rheumatismus odontalgicus, Hoffman.*

GEN. II. PHLOGISTICA.

ERYSIPELAS*.

Syn. ROSE.

Q. 22. *What is Erysipelas?*

A. It is a diffused red purple swelling, which spreads itself irregularly over the skin, attended with a burning heat. Upon applying the thumb, it changes to a white colour upon its being removed, but is immediately succeeded by the same red colour again. This swelling is sometimes said to shift its place. It for the most part terminates in small pustules, which discharge a thin acrid serum, and which in the course of a few days drop off in small scales. The affection is distinguished from phlegmone by Q. 3.

Q. 23. *What is the best mode of treating Erysipelas?*

A. The method recommended for the cure of inflammation in general, is also to be at-

* Erysipelas, Sauvagesius, Cullenus, Vogelius, Sagarus. Rosa, Ignis Sacer, Sermus.

tempted in Erysipelas. Although a resolution cannot be immediately effected, yet suppuration cannot be in any case encouraged, unless the symptoms run so high as to threaten gangrene; as experience has proved, that sores of the erysipelatous kind are more difficult to heal than others. On this account topical bleedings cannot be so safely used here as in other inflammations. Farinaceous powders are recommended to prevent the acrid serum discharged from the vesicles from corroding the skin.

PERNIO*.

Syn. CHILBLAIN.

Q. 24. *What is a Pernio?*

A. It is an inflammatory swelling, of a purple colour, affecting the extremities of the fingers and toes, attended with a stinging pain, and a degree of itching. It sometimes cracks, and discharges an acrid serum. At other times a mortification takes place, and an ulcer is produced very unfavourable for the healing.

* Pernio, *Linnaeus, Vogelius, Blancardus, Sauvagesius.*

Q. 25. *What is the cause of Pernio?*

A. It is owing to the weaker action of the small vessels most remote from the heart, occasioned by cold or dampness, and occurring more frequently in people of a delicate constitution, particularly those of a scrophulous nature.

Q. 26. *How is Pernio to be treated?*

A. When the patient has been some time exposed to the cold, and the parts are frost-bitten, plunging them immediately into the coldest water is to be attempted, rubbing them at the same time with salt. In lesser degrees of the affection, when the parts are only benumbed, rubbing the fingers with camphorated spirits of wine, answers equally well; at the same time avoiding the occasional causes. But when cracks take place, and an oozing of acrid matter ensues, poultices may be continued for a short time only; as fungous excrescences are apt to be formed by too long an application of them.

PARONYCHIA *.

Syn. WHITLOW.

Q. 27. *What is a Paronychia?*

A. It is a painful and burning swelling at the extremities of the fingers, terminating in an effusion of clear serum below the skin, which is sometimes so acrid, as to corrode the periosteum, and render the bones carious. At other times the inflammation runs so high, that the whole of the arm swells, particularly the lymphatics; and sometimes even the glands in the axilla.

Q. 28. *How is a case of Paronychia to be treated?*

A. When this affection arises from external violence, as from puncture or contusion, the remedies recommended for inflammation in general, (Q. 7.) will be found to be of service. When it arises, however, from unknown causes, the appli-

* Paronychia, *Linnaeus, Sauvagesius, Vogelius, Sagarus, Cullenus.*

cation of ardent spirits and astringents to the part, have been found useful, particularly when preceded by topical and general bleedings. But when an effusion of a ferous matter takes place, it is immediately to be discharged, as it can seldom or ever, by any means in our power, be converted into proper pus. When this serum has, however, continued for some time, and the bone has been rendered carious, to effect a complete cure, a removal of the whole bone, or of the carious portion, becomes necessary.

OPHTHALMIA *.

INFLAMMATION OF THE EYE-LIDS AND EYE-BALL.

Q. 29. *What is Ophthalmia?*

A. It is a pain, redness and swelling of the eye itself, or its membranes, so as to

* Ophthalmia, *Sagarus*, *Linnaeus*, *Vogelius*. Ophthalmites
Chemosis, *Vogelius*. Pituia, *Horalius*. Lippitudo, *Celsus*. Oculi
Inflammatiō, *Dolor Oculi*, *Sennert*.

render it incapable to bear the impressions of light, and generally attended with a discharge of hot, acrid serum, from the eye itself.

Q. 30. What are the causes of Ophthalmia?

A. External injuries, extraneous bodies, inserted between the eye-lid and eye itself, acting either by their chemical or mechanical irritation. Excessive light; too frequent examination of minute bodies; repeated intoxication; irritation produced by other diseases of the eye itself; excessive heat; the quantity of blood sent to the head increased, or its return from the head being prevented. Diseases in other parts of the body, as the lues venerea or scrophula, may be also a cause of ophthalmia.

Q. 31. In what manner is ophthalmia to be treated?

A. A removal of the causes (*Q. 30.*) is in every case necessary to effect a cure. When the disease depends upon some extraneous body, acting either chemically or

mechanically upon the part, it is to be removed by elevating the eye with a probe, contrived for the purpose, and bent like a hook. If it happens to be a minute body, as a particle of sand, it is to be washed out by water injected from a small syringe; as soon as this is effected, the eye is to be kept close for some time, and a strict antiphlogistic regimen is necessary. (Q. 28.) Topical bleedings, particularly about the temples, are found to be of considerable service. Scarifying the turgid vessels on the sclerotic coat, with a small convex scalpel, is often attended with the best effects, using at the same time cooling and astringent applications; as saccharum saturni, in the form of watery solution. Opiates also are successfully used to diminish the morbid sensibility acquired by the disease. It may be topically applied in the form of watery solution, dropped into the eye. Blisters, also, by removing a plethoric state, have been found to be of some service. Not exposing the eye to very strong lights, and bathing it for some time in cold water after the inflammation has subsided, is

said to prevent a return of the affection. In some cases, when ophthalmia has occurred periodically, bark has been found to be of some service.

PHRENITIS*.

INFLAMMATION OF THE BRAIN.

Q. 32. *What is a Phrenitis?*

A. It is an inflamed state of the brain or its membranes, attended with exquisite pain, inability to bear the impressions of light and sound, and for the most part accompanied by delirium.

Q. 33. *What are the causes of Phrenitis?*

A. External violence, though not attended with a fracture of the bones of the cranium, may be a cause merely by the commotion or concussion irritating it to such a degree as to promote inflammation. Portions of the cranium beat in upon the dura

* Phrenitis, *Cullenus, Sauvagesius, Sagarus, Linnæus, Vogelius. Phrenitiasis, Castet. Sphalerus, Galeni. Cephalitis, Sauvagesius* & *Ophthalmia Sephiluca, Baglivi.*

mater, concussions attended with simple fracture though not attended with a depression of the bone, yet the admission of the air through the fissure may be a cause of inflammation, where a plethoric state of the system prevails, that alone may be a cause of Phrenitis. Poisons taken into the system have also this effect.

Q. 34. In what manner is Inflammation of the Brain distinguished from concussion or compression of the brain?

A. In an inflamed state of the brain the pupils are not dilated, and they are very sensible to the impressions of light. The pulse is firm and hard from the first. It is particularly distinguished from concussion in its not appearing until some time after the accident; whereas in concussion the symptoms occur immediately upon the injury being inflicted. In some cases the inflammation occurs the second or third days after the accident, while at other times it does not occur for several weeks, when the patient appears dull and stupid. Nausea soon takes place, he is disturbed in his sleep, the

the face is flushed, and the eyes are somewhat inflamed. If a wound is present on the cranium an erisipelatous appearance spreads around it; towards the latter end of the affection subfultus tendinum takes place, together with other convulsive affections, an involuntary discharge of urine and fæces follows, and death at last closes the scene. When these symptoms take place without any external injury being the cause, the nature of the complaint is easily distinguished from compression.

Q. 35. How is Phrenitis to be cured?

A. The same mode of treatment recommended for inflammation in general (Q. 7.) is also proper in a cure of phrenitis. A strict antiphlogistic regimen is to be observed by extracting blood in such quantities, and at proper intervals, as the system can bear, from the jugular veins, and by leeches applied to the temples. Cathartics as they determine the blood from the head are exceedingly proper. With the same view pediluvium may be successfully used. The application of cooling saturnine poultices

tices to the part, or vinegar rubbed on the head, has been found to be of some service. A large blister laid over the head, in many cases, has been found to be of the utmost advantage.

PARAPHIMOSIS *.

Q. 36. *What is a Paraphimosis?*

A. It is a retraction of the præputium penis behind the glans penis, so that it cannot be drawn over the glans, owing to too great a fulness of the glans itself, produced by inflammation, occasioned by venereal virus, or any other acrid substance lurking behind the glans under the prepuce. Sometimes it may depend upon a stricture of the prepuce itself, being enlarged by inflammation, so as to obstruct the circulation in the glans, which occurs sometimes to such a degree, as to produce a mortification of it.

Q. 37. *How is a Paraphimosis cured?*

A. In the early stages of the affection,

* Paraphimosis, *Vogelius*.

merely

merely pressing the blood out of the glans by the fingers, allows the præputium to come over the glans, at the same time applying cooling saturnine applications to the glans. When the symptoms of inflammation still proceed, and a mortification is in danger of ensuing from the stricture, making a deep scarification over the stricture by a common lancet generally removes it.

VAR. § PHIMOSIS*.

Q. 38. *What is a Phimosis?*

A. It is an inflammatory swelling of the prepuce arising from the same causes as that of paraphimosis, occurring to such a degree as to render it impossible to draw the prepuce behind the glans.

Q. 39. *How is a Phimosis cured?*

A. The same remedies recommended for inflammation in general are commonly proper here. Fomenting the part with

* Phimosis, *Sauvagesius*, *Linnaeus*, *Vogelius*. *Phimosis circumligata*, *Astruc*.

warm water and poultices seems to be of considerable service, at the same time topical bleedings are necessary. When these methods fail recourse is had to a surgical operation.

Q. 40. *How is the operation for Phimosis performed?*

A. By dividing the prepuce longitudinally by a knife conducted in a directory, which is to be first inserted betwixt the prepuce and glans. Upon withdrawing the knife the operation is executed and the stricture removed.

GEN. III. *FLATUOSA.*

EMPHYSEMA*.

Syn. AIR SWELLING OF THE THORAX.

Q. 41. *What is an Emphysema?*

A. It is a diffused colourless elastic swelling, which, upon pressure, is attended with a crackling noise.

* Emphysema, *Sauvagesius, Linnæus. Pneumatosis, Cullenus, Sagarus, Vogelius. Empneumatosis, Aurelian. Hyderos, Galenus.*

Q. 42.

Q. 42. *What is the cause of Emphysema?*

A. It may arise from a rupture of some of the air vessels of the lungs, by violent exertions of laughing, crying, coughing; from erosions of the air vessels of the lungs, by ulceration, by the end of a fractured rib pushed in upon the lungs, or by a broken vertebra.

Q. 43. *In what manner is Emphysema distinguished from a collection of other fluids within the thorax?*

A. By the crackling noise occasioned by it, the rapidity of the swelling and the sudden oppression of breathing produced.

Q. 44. *In what manner is a case of Emphysema to be treated?*

A. By allowing the air to escape by small incisions made in the integuments, the symptoms may be palliated. When this fails a trocar is to be introduced cautiously into the thorax in a slanting direction, and in such a manner as to avoid wounding the lungs. When the air has escaped through the canula the obliquity of the puncture
serves

serves the purpose of a valve and prevents the admission of the external air into the thorax.

TYMPANITES*.

Syn. AIR SWELLING OF THE ABDOMEN.

Q. 45. What is a Tympanites?

A. It is an elastic colourless swelling, which, upon touching, gives a sound similar to that of a drum, occasioned by some of the hepatic air of the intestines escaping through a rupture of some of them, by a hole eroded in them, by some acrid substance, or sharp pointed body penetrating through them, or by worms. It is easily distinguished from dropfical swellings by the weight and want of fluctuation, which is generally observed in hydropic swellings.

Q. 46. How is Tympanites to be treated?

A. By allowing the air to escape through a fine canula of a small trocar, and that in

§ Tympanites, Sagarus, Cullenus, Vogelius, Linnæus, Sauvagesius. Tympana, Galenus. Tympanita, Sennert. Hydrops siccus, Hippoc.

a gradual manner. The trocar is to be introduced in the same manner as recommended for the Emphysema (Q. 44.), at the same time the bowels are to be supported by a proper bandage, which is to be gradually tightened as the air escapes in order to prevent fainting and violent degrees of inflammation, which would be apt to take place in the bowels from a great degree of plethora being produced by their being deprived of the support given by the air upon its being abstracted suddenly. In some cases, where the bandages have been omitted, dangerous hæmorrhages were said to take place.

ORD. II. ENCYSTIS.

GEN. IV. PURIFORMIS.

ABSCESSUS §.

Syn. ABSCESS, BOIL.

Q. 47. *What is an Abscess?*

A. It is a cyst of purulent matter formed in consequence of inflammation (Q. 10).

Q. 48. *In what manner is an abscess to be treated?*

A. As soon as we are certain of pus being once fully formed by the symptoms of inflammation ceasing (Q. 20), and by the fluctuation felt through the integuments, the contents of the abscess are in every case to be discharged by making an incision into the most depending part of the tumour. When the tumour is however of considerable size, and when matter is allowed to remain for some time a free discharge of the tumour

§ Abscessus, *Linnaeus et Vogelius*. Apostema, *Sauvagesius*, *Sagarus*, et *Cullenus*.

will not always effect a cure, for another collection will be apt to form in the same cyst. To prevent this, the cavity of the cyst must be destroyed altogether by producing a certain degree of inflammation on its surface, which will seldom fail to effect an adhesion, and lastly a concretion of the sides of the sac.

Q. 49. What is the best mode of exciting this certain degree of Inflammation?

A. Various substances have been recommended to excite it, such as caustic, acid injections thrown into the sac, and the free admission of the external air. Other substances acting by their mechanical irritation, produce a sufficient degree of inflammation, as the introduction of a cord by means of a long probe, introduced by a previous incision into the highest point of the tumour, and which is to be pushed downwards until the end of the probe is felt at the inferior part of the tumour. An incision is to be made directly on the point of the probe, which is allowed now to pass through the abscess, carrying the cord
E after

after it. The cord being now allowed to remain, by its mechanical irritation on the inside of the sac, produces the necessary degree of inflammation, and by drawing it forward from time to time the matter is allowed to escape along with it. As soon as the sides of the sac begin to adhere the cord is to be removed altogether, and by gentle pressure the inflamed sides of the sac are to be kept in contact, and the cure completed.

VAR. A. ABSCESSUS PULMONALIS *.

Syn. LUNG BOIL.

Q. 50. *How is an Abscess of the Lungs to be treated?*

A. As soon as an abscess of the lungs is distinguished by the tumour pointing through the integuments, to prevent its bursting suddenly and occasioning immediate suffocation, its contents are to be discharged by making an incision through the integuments upon the part the tumour

* Vomica, *Linnaeus, Vogelius, & Cullenus.*

points to. When the incision has penetrated into the cavity of the thorax, the seat of the abscess is to be explored by the finger, and an incision made into it as soon as it is discovered, which is to be afterwards kept open by a hollow bougie or tube until the wound fills from the bottom.

VAR. B. ABSCESSUS HEPATICUS *.

Syn. ABSCESS OF THE LIVER.

Q. 51. *How is an Abscess of the Liver distinguished?*

A. By proper attention to the preceding inflammation by the enlargement of the region of the kidney, and by the shivering fits which generally occur. Sometimes a fluctuation is evidently felt through the integuments of the abdomen. A discharge of pus, by the anus, sometimes takes place from adhesions of the liver and colon. There has been some instances of the abscess bursting through the diaphragm into the thorax.

* Hepatalgia, *Sauvagesius*, *Sagarus*. Hepatalgia Apoftematosa, *Bartholin*.

Q. 52. How is an Abscess of the Liver to be treated?

A. When once the existence of an abscess is fully ascertained (Q. 51.), particularly when it points through the integuments of the abdomen, the mode of treatment is exactly similar to that recommended, (Q. 50.) for abscess of the lungs.

VAR. C. ABSCESSUS LUMBARIS*.

Syn. LUMBAR ABSCESS.

Q. 53. How is a Lumbar Abscess distinguished?

A. As these abscesses are generally formed on the anterior part of the os sacrum, they may be sometimes mistaken for lumbago, and at other times they have a strong resemblance to nephritic affections. No discoloration of integuments takes place for the most part. However fluctuation of matter is generally perceived. The con-

* Lumbago Psoadica, *Fordyce*. Lumbago Apostematosa et Ischias ex Abscessu, *Sennert*. Morbus coxanus, *De Haen*. Arthropous, *Cullenus*.

tents of the tumour sometimes get down behind the peritoneum, and point outwardly towards the anus. By its getting down along with the great blood-vessels, below Paupert's ligament, it assumes the appearance of crural hernia; but may be easily distinguished from it, by no symptom accompanying hernia taking place.

Q. 54. How is a Lumbar Abscess to be treated?

A. By the same remedies recommended for abscess in general; by emptying the tumour by free incisions, and by the frequent use of mild astringent injections; but the discharge is commonly so enormous, and the hectic fever so violent, that the patient, in most cases, falls a victim to the disease, notwithstanding the most vigorous exertions of art.

VAR. D. ABSCESSUS ANTRI MAXILLARIS.

Q. 55. How is an Abscess of the Antrum Maxillare distinguished from Tooth-ach and other affections of the cheek?

A. By a pain and uneasiness first beginning in the cheek, and extending upwards

to the eyes, nose, and ears, together with a swelling, which, in the latter stages of the disease, tends to a point most frequently in the centre of the cheek. Sometimes a discharge takes place between the roots of the great molares, when they happen to penetrate the antrum. Sometimes a discharge of matter from the nostrils takes place; particularly when the patient lies on the opposite side to the tumour, with his head low.

Q. 56. What are the Causes of Abscess of the Antrum Maxillare?

A. The cause may be that of inflammation in general; such as, violent fits of the tooth-ach, occasioning excessive pain and inflammation of the membranes of the nose and antrum. Cold may have also similar effects, and may be a cause.

Q. 157. How is an Abscess of the Antrum Maxillare cured?

A. By giving a free discharge to the contents of the tumour, by making a perforation through one of the sockets of the great molares, the sockets of which sometimes

times penetrate the antrum. When this occurs, there is no occasion for any other perforation. The best mode of making the perforation is by a trocar, drilled through the socket into the antrum. As soon as the whole of the matter is discharged, a plug may be introduced into the perforation, which may be removed from time to time, to allow the matter to run out; and to admit astringent solutions of bark to be thrown up occasionally into the cavity of the antrum. In this way a cure is obtained, if the bones happen to be sound. But if they are carious, it is impossible to expect a cure, until the diseased portions of the bone exfoliate, and be removed. When clotted blood is formed in the antrum, it is to be removed in the same manner. Sometimes the bones of the antrum begin to swell, and no matter is found upon opening the antrum. In such a case the operation does harm. No external application has been as yet discovered, capable of removing such swelling. A long continued course of mercury has been found to be of some service.

STAPHYLOMA *.

Syn. ABSCESS WITHIN THE EYE-BALL.

Q. 58. *What is a Staphyloma?*

A. It is an abscess found within the coats of the eye, and being of a purulent nature renders the aqueous humour so opaque, as to prevent the rays of light from falling upon the retina. A pain is felt over the whole eye, which generally, however, retains its usual form.

Q. 59. *How is Staphyloma cured?*

A. In the same manner as recommended for abscess in general; by discharging the contents of the tumour; by making an incision into the most prominent part of the cornea. As soon as the aqueous humour, and the purulent matter are discharged, the eye should be covered with a slight compress, using at the same time a strict antiphlogistic regimen, (Q. 8.) to prevent inflammation from taking place.

* Staphyloma, *Sauvagesius, Vogelius.*

HYPOPYON*.

Syn. ABSCESS BETWEEN THE COATS OF
THE EYEBALL.

Q. 60. *How is Hypopyon distinguished?*

A. It is an abscess formed between the coats of the eye-ball by inflammation, and is distinguished from staphyloma, by a particular portion of the eye being only affected; by the pain being felt in one place only, and by the contents of the cyst elevating a small portion of the eye above the rest.

Q. 61. *How is Hypopyon to be cured?*

A. In the same manner as recommended for staphyloma. When fungous excrescences arise from the incision made into the cornea, they are to be eaten down by escharotics.

† Hypopyon, *Vogelius*.

EMPY-

EMPYEMA*.

Q. 62. *What is an Empyema?*

A. It is a collection of pus formed within the cavity of the pleura costalis, in consequence of inflammation, and attended with difficulty of breathing from its pressure upon the lungs.

Q. 63. *In what manner is Empyema to be treated?*

A. When the seat of the abscess is fully ascertained, by the tumour pointing out between two of the ribs, a free discharge is to be given to the pus, by making an incision into the abscess. This operation has been termed *Paracentesis of the Thorax*.

Q. 64. *How is the operation of Paracentesis of the Thorax executed?*

A. The patient is to be laid in an horizontal posture; then an incision is to be made with a scalpel, two inches long, between the sixth and seventh ribs, in the

* Empyema, Sauvagesius, Linnaeus, Cullenus, Vogelius.

direction

direction of the bones, and half way between the sternum and spine. (This method is to be attempted when there is reason to suspect, that pus is collected within the whole cavity of the pleura, and when the abscess does not point to any particular part.) In making this incision, the superior part of each rib is to be avoided, on account of the groove, situated within it, for lodging the blood-vessels and nerves. The intercostal muscles being divided, and the pleura laid bare, it is to be cautiously divided by slight scratches, to avoid all risk of wounding the lungs, should they happen to adhere to the pleura. If this happens to take place, the surgeon is immediately to desist, and make an attempt in some other place. When the adhesion takes place, the matter is immediately discharged by the opening, into which a cannula is now to be introduced, and the matter allowed to run out in a gradual manner, to prevent any alarming symptom (Q. 46.) from taking place; as the same advantage cannot be here obtained from a bandage, as in cases of fluids collected within the abdomen.

abdomen. The skin being drawn past its natural situation, when the first incision is made, answers the effect of a valve, in excluding the air from the lungs, by its regaining its natural situation, and covering the incision made through the intercostal muscles. The skin may be daily drawn, so as that the incision in the integuments may correspond to that in the intercostal muscles and pleura, to allow the matter to run off. This method seems preferable to the perpetual use of a canula, which seldom fails to irritate to the surface of the lungs considerably.

Q. 65. When Matter is collected in both sides of the Thorax, how is the case to be treated?

A. As the admission of the external air into the cavity of the thorax presses upon the lungs, and produces a degree of suffocation, when one side of the thorax is only opened, when matter is collected on both sides, therefore, the affection is to be entirely removed on one side, before an attempt is to be made to open the other.

To

To prevent the air from pressing upon the lungs, and occasioning oppression to too great a degree, by its being allowed to remain between the lungs and pleura, let the patient make a full inspiration, as soon as the canula is removed; or, let an elastic bottle be applied to the wound in the pleura, and it will extract the air into its cavity. To produce a radical cure, by exciting a certain degree of inflammation, between the lungs and pleura, so as to produce a concretion of them, (Q. 48,) is not as yet confirmed by experience. There is, however, a great probability of its succeeding, from adhesions daily taking place between them; being discovered by dissection; and yet the person laboured not under any considerable inconvenience. Dr. MONRO recommends a seton to be introduced into the side, by means of a curved trocar. Allowing the seton to remain for some days, it will produce a sufficient degree of inflammation.

Q. 66. How is the Seat of Abscesses of the Thorax, or Lungs, ascertained?

A. When the patient throws up pus by the mouth, we may be certain it comes from the lungs; but, though this does not happen, the disease may still exist in the lungs, when pus is effused within one side of the pleura only. The patient lies easiest on the affected side. When the abscess lies near the surface, it may be observed by the integuments, which are sometimes found thickened.

GEN. V. *HYDROPS.*

HYDROTHORAX *.

CHEST DROPSY.

Q. 67. What is an Hydrothorax?

A. It is a collection of water within the cavity of the chest impeding the motion of the heart, and of the organs of respiration.

* *Hydrothorax, Savanagesius, Cullenus, & Sagarus. Hydrops Pulmones, Hippoc. Hydrothorax Pleuræ, Hoffman.*

Q. 68. What are the Diagnostic Symptoms of Hydrothorax?

A. When a general hydropic diathesis of the system prevails ; when, upon placing the hand upon the sternum, and raising the patient suddenly from a horizontal to an erect posture, the undulation of the water is felt dashing against the sternum ; when a degree of inflammation has preceded the affection, for inflammation of the pleura has been often found to terminate, by a serous effusion into the cavity of the thorax. The urine is also generally scanty and high coloured ; the patient has a dry tickling cough, with little or no expectoration, and is always attended with oppression ; the sleep is much disturbed, and, as the disease advances, the pulse grows weaker and more irregular. When the water is collected on one side only, for the most part that side is more prominent, and the patient lies easier on the affected side. It is difficult to distinguish a dropsy of the pericardium from that of the rest of the thorax. When a dropsy of it occurs, the pain is generally
felt

felt about the middle of the sternum; and the stroke of the pulse is, as it were, buried below water.

Q. 69. *How is Hydrothorax to be cured?*

A. Medicine has little effect in removing the affection. Squills, cremor tartari, and mercury, sometimes, are attended with advantage. But the only method of cure that can in any way be depended upon, is the removing of the water by chirurgical operation, which is to be executed in the same way, and with the same precautions, as recommended for (Q. 64.) removing collections of pus.

ASCITES*.

Syn. DROPSY OF THE BELLY.

Q. 70. *What is Ascites?*

A. It is an equal colourless swelling over the whole of the abdomen, occasioned by a serous fluid, effused within the cavity of the peritoneum.

* Ascites, Sauvagesius, Sagarus, Linnæus, Vogelius.

Q. 71.

Q. 71. *How is Ascites distinguished from other Swellings of the Abdomen?*

A. By the fluctuation of the water where it can be perceived; by oppression of breathing, particularly when in the horizontal posture. Much thirst, and scarcity of urine: the patient is pale, and the umbilicus is pushed outwards; whereas in an enlargement of the abdomen by fall, it is sunk inwards.

Q. 72. *What are the causes of Ascites?*

A. It may be either an increased exhalation or morbid secretion into the cavity of the peritoneum; or, it may depend upon undue inhalation, or absorption. It may be merely local, and produced by compression upon the lymphatics, by scirrhoties of the bowels, particularly the liver *. It may depend also upon a thinness of the blood itself, or upon a rupture of some of the lymphatics or lacteals †, or it may depend upon a general hydropic dia-

* Ascites ab Hepate, *Bonet*. † Ascites artificiales, *Lower*.

thesis of the system; and may be combined with anasarca.

Q. 73. How is Ascites cured?

A. When the disease depends upon a general hydropic affection of the system, it becomes very formidable, and a cure is seldom obtained in persons after forty years of age. Medicine has little effect in removing the affection. Drastring purges of mercury, jalap, and cream of tartar, are sometimes attended with success. Some stimulants acting upon the kidneys, in some cases have been found to answer; such as the squill, foxglove, &c. In order to effect a palliative cure, the water is sometimes drawn off by a surgical operation. Sometimes the pressure of the water upon the kidneys prevents the further secretion of urine.

Q. 74. What is the best mode of performing the operation of Paracentesis of the Abdomen?

A. The patient is to be laid in an horizontal posture, and fitted with a bandage,
as

as recommended for tympanites, (Q. 46.) The course of the epigastric artery is to be avoided, in making the puncture, which should be made by a lancet-pointed flat trocar, half way between the os ilium & umbilicus, in a slanting direction. The bandage is to be gradually tightened as the water runs off. If the patient begins to faint, (Q. 46.) notwithstanding of the bandage the flow is to be stopped, by placing the point of the finger upon the canula. If the flow happens to stop suddenly, a blunt probe, having one of its ends curved, is to be introduced to remove any portion of bowel, that may obstruct the canula. As soon as the whole of the water is removed, in this manner, the canula is to be withdrawn, and the wound is to be covered with simple ointment, and the abdomen rubbed over with spirit of wine.

VAR. A *. ANASARCA †.

Q. 75. *What is an Anasarca?*

A. It is a soft colourless swelling, of either a part or the whole body, retaining the impresson of the finger for some time, and occasioned by a serous effusion between the cellular substance, and sometimes even between the muscular fibre.

Q. 76. *What is the cause of Anasarca?*

A. Debility in a part, occasioned by contusion or some external violence, may produce a partial Anasarca. It may, in some instances, also depend upon mechanical pressure of the lymphatics, owing to tumours; or it may depend upon a division of them by accident. An universal anasarca of the whole body depends upon the same causes as that of general ascites (Q. 72.)

Q. 77. *How is Anasarca cured?*

A. When the affection depends upon a

* Anascara, *Sauvagesius*, *Cullenus*, *Vogelius*, *Linnaeus*.

† Hydrocele, *Cullenus*, *Sauvagesius*, *Vogelius*.

general hydropic diathesis of the system, a cure can be only obtained by a removal of the primary affection. When the affection, however, is only local, and depending upon a local cause, as debility from sprains or contusions, the cure is to be attempted, by supporting the part, with a laced stocking, especially when it happens to be the extremities, using friction at the same time to promote absorption. When the swelling is not diminished by these means, removing it by puncturing the part, is found to answer in some cases. Violent degrees of inflammation often succeed such punctures, which are to be obviated by applying saturnine applications to the punctures. When gangrene is threatened, it is to be obviated by wine and bark. When the affection depends upon a pressure upon the lymphatics of the part, a cure is generally obtained upon the pressure being removed. When the affection depends upon a division of the lymphatics, small punctures from time to time are found to remove the affection.

HYDROCELE.

Q. 78. What is an Hydrocele?

A. It is generally understood to be a collection of water within the tunica vaginalis of the testicles* or the membranes of the scrotum.

Q. 79. What are the Diagnostic Symptoms of Hydrocele?

A. Hydrocele is distinguished from hernia by the tumour in hernia being more unequal to the touch. The swelling in hydrocele always begins in the inferior part of the scrotum; whereas in hernia, the swelling always begins at the top and extends gradually downwards. In hernia the spermatic chord is scarcely distinguished in its course; while in hydrocele, for the most part it is distinguished throughout the whole course of the disease. In hernia a fluctuation is seldom perceptible, while in hydrocele a fluctuation is almost always perceived; besides the other symptoms attending hernia are wanting.

* *Pott.*

Hydrocele is distinguished from encysted dropsy of the chord by the swelling lying on the superior part of the scrotum; whereas in hydrocele, it lies at the inferior part of the scrotum. It is easily distinguished from a scirrhus testicle, from the scirrhus testicle being hard, firm, and not yielding upon pressure; from the roughness and unequality attending it; from the stinging pain, and from the great weight in proportion to its bulk. In hydrocele the swelling is compressible, little pain takes place, and the tumour is light in proportion to its bulk. By exposing it to the light of a candle it seems transparent if the contents of the sac be clear and if the vaginal coat has not acquired too great a thickness. In some cases hernia takes place at the same time. In such cases the diagnostic symptoms are more complicated.

Q. 80. In what manner does Hydrocele begin and terminate?

A. A tumour first begins at the inferior part of the scrotum, which disappears upon pressure, but as it increases it becomes more tense, and the rugæ of the scrotum become

less perceptible, until at last they entirely disappear. The tumour now appears more conical, with its apex towards the abdomen; the penis also disappears owing to the weight of the tumour pulling down the skin of the neighbouring parts along with it. The scrotum becomes at last so very tense, that fluctuation can scarcely be perceived in it, and after it has continued for some time in this state, it at last bursts and the whole water is suddenly discharged.

Q. 81. What are the causes of Hydrocele of the Tunica Vaginalis Testis?

A. The causes of Hydrocele are the same with those of dropy in general. In the state of health a small quantity of aqueous exhalation for lubricating the surface of the testicle takes place. This quantity may be morbidly increased or the power of the absorbing system diminished. In either of these cases, it may prove a cause of hydroceles.

Q. 82. How is a Hydrocele to be treated?

A. The disease may be palliated by a removal of the water, as recommended for
dropy

dropfy in general, by making an incision by the lancet, or by Mr. Andre's flat trocar, with a lancet point introduced in an oblique direction cautiously on the anterior and bottom of the tumour. As soon as the whole of the water is removed the canula is to be withdrawn, and the wound on the scrotum is to be cured with some adhesive plaister. The scrotum is to be then supported by a T bandage, and the patient is to be confined to bed for a few days until the parts in some measure recover their tone. To promote a radical cure few external or internal medicines have any effect. Some mild mercurial purges given once or twice a week, and applying at the same time a solution of saccharum saturni to the part has been known to be of service in some cases. After all these have failed, a cure is only to be obtained by a chirurgical operation, the chief intention of which is to produce an accretion of the sides of the sac together, so as to obliterate its cavity.

Q. 83. How is the Operation for the radical Cure of Hydrocele performed?

A. Various methods have been proposed and recommended for exciting a certain degree of inflammation in the tunica vaginalis of the testicle, such as the application of caustic, the introduction of a seton (Q. 49), throwing in air and acrid injections, and making an incision by the knife so as to admit the cool air freely into the cavity of the tunica vaginalis. The latter method is generally preferred. It is executed by making an incision with a round edged scalpel through the integuments, from the top to the bottom of the tumour. Then with a lancet an incision is to be made in the tunica vaginalis of the testicle large enough to allow the finger to be introduced, which now serves as a directory for conducting a straight probe-pointed scalpel with which an opening is to be made, by dividing the superior part of the tunica vaginalis. Then the opening is to be extended downwards to the most inferior point of the tumour, unless the skin be much thickened. There is no occasion for removing

removing any portion of it. The state of the testicle is to be immediately examined, and, if it is found, it is to be instantly covered and defended from the air, and a piece of soft lint introduced between the lips of the wound so as to produce a proper degree of inflammation. But when the inflammation runs too high it is to be moderated by blood letting, and the other parts of the antiphlogistic regimen, applying, at the same time, warm emollient poultices over the part to favour a plentiful suppuration, which is always necessary for the cure. The patient is to be confined to bed until the swelling subsides, which will generally happen in a few days. In this manner a cure is, for the most part, obtained in the course of five or six weeks. When both sides of the scrotum are affected at the same time the first side is to be allowed to heal before a cure is to be attempted on the other, as the danger attending the operation arises from the extent of surface exposed to inflame. Dr. MONRO has found* that the most successful time for executing this operation is to attempt it

* Dr. *Monro's* Prælectiones.

very soon after the palliative method has been once executed, before it begins to increase again. In this stage the extent of surface exposed to inflame is much less, and the danger attending the operation more inconsiderable.

Q. 84. What prognosis can be given of the operation for Hydrocele?

A. In very old people of infirm constitutions and otherwise diseased, the prognosis may be doubtful. But in constitutions otherwise healthy, and when a simple Hydrocele only takes place, little or no danger can arise from an operation for the radical cure. The danger must be always more or less considerable in proportion to the size of the tumour and the extent of surface exposed to inflame.

Q. 85. How are Anasarcical Swellings of the Scrotum to be treated?

A. By removing the water by scarification, punctures, &c. When anasarcous swellings of the scrotum arise from an ulcer in the urethra of a venereal nature, such ulcers are to be cured by a long continued use of
mercury,

mercury, inserting a bougie into the urethra, and removing the callous edges by the scalpel.

HYDROPS SACCI HERNIOSI.

Q. 86. How is a Dropsical Swelling of the Herniary Sac distinguished?

A. The water can be made by pressure to pass into the cavity of the abdomen. In no other species of dropsical swellings does this take place.

Q. 87. How is a Dropsical Swelling of a Herniary Sac to be treated?

A. Unless the patient submits to the operation for Hernia, no attempt is to be made to promote a radical cure, particularly if the bowels protrude. The utmost that can be done is to draw off the water by a small trocar.

ASCITES FUNIS SPERMATICI.

Q. 88. In what manner is Encysted Dropsy of the Spermatic Chord distinguished?

A. It is distinguished from hydrocele
tunicæ

tunicæ vaginalis, by (Q. 79) the testicle being found in this species of swelling always on the back part of the tumour, and unconnected with it. The size of the penis is not so much altered. It may be distinguished from hernia by the touch and from the swelling not beginning first at the ring of the oblique muscles.

Q. 89. In what manner is Encysted Dropsy of the Chord to be cured?

A. By the same radical method as recommended for the cure of hydrocele tunicæ, vaginalis testis, or a palliative cure may be obtained by discharging the water.

Q. 90. In what manner are Anasarcous Swellings of the Chord produced?

A. They are occasioned by an hydropic diathesis prevailing in the system, or by some affection of the lymphatics of the part. They may also be entirely local.

Q. 91. How is an Anasarcous Swelling of the Chord distinguished?

A. It is easily distinguished from dropsical swellings

swellings of the tunicæ vaginalis testis, from the water being not collected in a cyst of the peritoneum. It is distinguished from hernia by the symptoms attending hernia being wanting; and from the encysted dropsey of the chord by the touch being not elastic, and by the fluctuation being imperceptible, which is the contrary in the encysted dropsey of the chord.

Q. 92. *In what manner are Anasarcaous Swellings of the Chord to be treated?*

A. By removing the general hydropic disposition, if present, and by discharging the water by puncture, as recommended for anasarca in general (Q. 77), and with the same precautions.

HYDROPS OVARII*.

Q. 93. *How is Dropsy of the Ovaria to be treated?*

A. No operation can be attempted for its

* Ascites Ovarii, Sauvagesius. Ascites Saccatus, Merckleni. Ascites ab Ovariis, Mead.

cure unless the disease has advanced to a considerable size, as the nature of it can then be more easily ascertained from its situation, and from its occupying one side of the abdomen only. The method of cure must be the same as that recommended for ascites. A radical cure can scarcely be expected from the situation of the part, and from the contents being confined in hard cyst. The absorbent system acted upon by any medicines can have little effect.

HYDROPTHALMIA *.

Syn. DROPSY OF THE EYE-BALL.

Q. 94. What are the Diagnostic Symptoms of Dropfical Swellings in the Eye-ball?

A. The distinction in the latter stages of dropfical swellings of the eyes is not easy, as they may be mistaken for staphylema; but in the early stages it may be easily distinguished from the eye being somewhat enlarged,

* Hydrophthalmia, *Vogelius*. Staphyloma, *Sauvagesius*.

and still sensible to the impressions of light. It may be also distinguished from staphyloma by the colour of the aqueous humour of the eye, and from the one immediately succeeding inflammation. The pain attending dropical swellings is at first very inconsiderable, except in the very last stages of the affection, when the distension alone renders the disease distressing.

Q. 95. How is Dropsy of the Eye-ball to be treated?

A. The chief indication in the cure, is to restore the sight as soon as possible, which may be destroyed by the deformity occasioned by the distension of the eye, from the water not allowing the rays of light to collect before they fall upon the retina. This alone may prevent vision, independent of any other morbid affection of the eye. To prevent this, a small incision is to be made either in the inferior part of the lucid cornea, or in the posterior chamber of the aqueous humour of the eye, to allow the water to run out. Such remedies as are found to answer best for the removal of the general affection

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of

of the system, and for promoting absorption, are to be used.

HYDARTHUS *.

Syn. DROPSY OF THE JOINTS.

Q. 96. What are the Diagnostic Symptoms of Dropsical Swellings of the Joints?

A. When dropsy of the capsular ligaments occurs, the fluid passes with ease from one side of the joint to the other. Whereas in swellings of the *bursæ mucosæ* it is more circumscribed. It is also distinguished from anasarcaous swelling of the cellular substance, by the affection extending beyond the joint.

Q. 97. How is Dropsy of the Knee to be treated?

A. By removing the hydropic disposition of the system, if present, and by drawing off the water by an opening made into the joint. The greatest attention is however here necessary to prevent the free access of the external

* Hydarthus, *Sauvagesius*, *Cullenus*, *Sagarus*.

air into the cavity of the joint, which is liable to very high degrees of inflammation.

HYDROPS BURSAE MUCOSÆ.

Q. 98. What are the causes of Dropfical Swellings of the Bursa Mucosæ?

A. Such dropfical collections may sometimes arise from rheumatism, which in some cases terminate by a serous effusion within the Bursa; or it may be the consequence of sprains or contusions. It is distinguished from dropfical swellings of the joints by Q. 96.

Q. 99. How are Dropfical Swellings of the Bursa Mucosæ to be treated?

A. When the affection arises from rheumatism, friction upon the part and blisters are sometimes attended with the best effects. But when the affection arises from sprains, the matter contained in the Bursa can seldom be made to disappear. In such a case an opening is to be made into the sac, when it can be with propriety executed. But when

this is impracticable from the continuity of nerves and tendons, a seton or chord is to be introduced (Q. 49), and a cure is soon effected.

VAR. §. GANGLION.

Q. 100. *What is a Ganglion?*

A. It is a small moveable tumour formed by a distension of some of the bursæ mucosæ at the wrist of the hand, and containing a clear viscid matter.

Q. 101. *How are Ganglions to be cured?*

A. By either removing them by the scalpel, or diminishing their size by pressure. Friction may be also used. Their contents may be allowed to run off by making a perforation into them with a fine needle.

SPINA BIFIDA *.

Q. 102. *What is a Spina Bifida?*

A. It is a soft swelling on the spinous

* Hydorachites, Sauvagesius, Sagarus, Cullenus. Spina Bifida, Vogelius. Spinola, Linnaeus.

processes, more commonly of the lumbar vertebræ, occasioned by a collection of serum within the natural covering of the spinal marrow, and is sometimes accompanied with hydrocephalus.

Q. 103. *How is a Spina Bifida to be treated?*

A. All that can be done for it is to support the tumour by a bandage. All the attempts ever made to discharge the contents of this kind of tumour proved unsuccessful, and the consequences have been generally fatal.

GEN. VI. SANGUINEA.

ANEURISMA*.

Q. 104. *What is an Aneurism?*

A. It is a morbid dilatation of the coats of an artery, and is distinguished from abscess by its being always situated over the coats of an artery. In some cases, however, the

* Aneurisma, Sauvagesius, Sagarus, Cullenus, Linnæus, Vogelius.

distinction is difficult. When the abscess is in contact with an artery, a pulsation may be felt distinctly through the tumour. The most essential character of Aneurism is when its contents are made to recede upon pressure, and to return again immediately upon the pressure being removed. A pulsation is generally felt throughout the whole course of the disease.

Q. 105. *In what manner does Aneurism terminate if not cured?*

A. The swelling, though at first of a small size, gradually advances. The skin still keeps its natural colour, and little pain is felt in the part. In a short time, however, the skin becomes pale, and the tumour yields impartially upon pressure. The pain becomes now more considerable, and the skin begins to grow livid, and discharges for some time a bloody serum until at last it becomes quite gangrenous, when all of a sudden the tumour bursts, and carries immediate death along with it by the great discharge of blood from it, if it happens to be a dilation of some considerable

able vessel, or if it has acquired an extraordinary size.

Q. 106. *What are the causes of Encysted * Aneurism?*

A. The cause may either be a partial debility in the coats of an artery by violent blows, or the like, or it may arise from a want of resistance given to the coats of the artery from its being deprived of its usual support, owing to extensive portions of bone being removed by mortification, caries, &c. A resistance given to the passage of the fluids in the vessels often terminates in a dilation of them. The prick of a lancet, although it did not penetrate into the cavity of the artery, has been often found to occasion aneurism from the debility it occasions in the coats of the artery.

Q. 107. *How is Aneurism to be treated?*

A. In the early stages of the affection pressure is found to have some effect, when it

* Aneurisma Verum, *Sauvagesius*,

is applied as soon as the blood is forced out of the sac, and when the patient is for some time kept upon a low diet to prevent plethora. But when these fail, recourse is to be had to a surgical operation, the chief indication of which is to obliterate the cavity of the artery altogether.

Q. 108. How is the Operation for Encysted Aneurism executed?

A. Longitudinal incision is to be made above the dilated part cautiously, so as to bring the artery into view. The incision is to be extended an inch above the dilated part. A ligature is now to be carried, by means of a blunt hook, behind the artery, which is to be surrounded by it, and tightened to such a degree, as to obliterate entirely its cavity. The circulation is still to be supported in the under part of the limb by the anastomosing branches, which gradually dilate, and prove at last sufficient for nourishing the arm. Warm applications are to be used to the parts below, to determine the blood more copiously into them.

Q. 109. *What prognosis can be given of Aneurisms?*

A. The prognosis must depend upon the manner in which the disease has been produced; upon the situation of it; upon the part and the progress of the swelling. When the swelling comes on in a slow and gradual manner, the prognosis is worse than when its progress is more rapid and owing to some accident. When the disease is high in the extremities, the prognosis is worse than when it is lower. In some cases an operation has succeeded, although it had been performed several inches above the elbow.

VAR. A. ANEURISMA SPURIA *.

Syn. DIFFUSED ANEURISM.

Q. 110. *How is diffused Aneurism distinguished?*

A. By a diffused swelling of the integuments, occasioned by blood poured out

* Aneurisma Spurium, Heister.

from

from an artery ruptured, into the cellular substance, occurring sometimes to such a degree as to occasion a lividness and mortification of the whole limb. The cellular substance becomes at last indurated, and forms a sac, which being gradually distended, bursts at last of a sudden, and terminates, as in encysted aneurism (Q. 105).

Q. 111. *What are the causes of Diffused Aneurism?*

A. It may arise from punctures of sharp pointed instruments; or corrosive matter of sores, &c. destroying the coats of the contiguous artery. It is for the most part the consequence of blood-letting in the arm, from the lancet wounding the artery.

Q. 112. *How is the Diffused Aneurism to be cured?*

A. After making an incision along the course of the tumour, and removing all the clotted and extravasated blood, the orifice, from which the blood is poured out, is to be discovered by slackening the tourniquet, which is to be applied previous to the operation,

operation, to prevent hæmorrhagy. As soon as the opening is discovered, a ligature is to be applied, both above and below the part where the wound is discovered in the artery, and the remaining wound is to be dressed in the common method. For the cure of Diffused Aneurism, another method has been lately proposed, by Mr. Lambert, of performing the twisted suture upon the orifice of the artery. It has succeeded as yet in one case only. There are many objections stated against this method. Upon withdrawing the pins a fresh Aneurism is produced: A partial debility is said to take place in the coats of the artery, which lays the foundation of a new Aneurism. The cavity of the artery is also much lessened.

VAR. B. ANEURISMA VARICOSA.

Syn. VARICOSE ANEURISM.

Q. 113. *What is a Varicose Aneurism?*

A. When blood rushes from a rupture of an artery into a vein, a dilation of the coats of the vein is the consequence. It is distinguished

guished from the other varieties of the Aneurism by a particular hissing noise and tremulous motion, resembling the letter R. The pulse is also more feeble than that of the opposite arm. The affection is for the most part produced from the lancet, in the operation for blood-letting (Q. 9), passing through the opposite side of the vein into the artery.

Q. 114. How is Varicose Aneurism to be cured?

A. The progress of the Varicose Aneurism is not, in general, so rapid, as it is in the other species of aneurism; for often, after it has acquired a certain size, it remains stationary, without acquiring any additional bulk. When the case, however, turns out otherwise, and the several symptoms (Q. 105), take place, that attend aneurism, the method of cure must be exactly the same as recommended for encysted aneurism (Q. 107).

VARIX.

V A R I X *.

Q. 115. *What is a Varix?*

A. It is a morbid dilation of a vein, occasioned by the same causes as those of encysted aneurism (Q. 106).

Q. 116. *How is a Varix to be treated?*

A. In the same manner as recommended for aneurism (Q. 107).

V A R. A. C I R S O C E L E *.

Syn. V A R I C O C E L E.

Q. 117. *What is a Cirsocele?*

A. It is an enlargement of the spermatic veins, by pressure with a truss, or too tight breeches, forming hard tubercles, by the blood being prevented from returning to the head.

§ Varix, Sauvagesius, Cullenus, Sagarus, Linnæus, et Vogelius.

* Cirsocele, Vogelius, Blancardus.

Q. 118. *How*

Q. 118. *How is Cirsocele to be treated?*

A. By avoiding the cause a cure is generally obtained; by a removal of the cause, and by avoiding plethora.

VAR. B. THROMBUS.

Syn. VARIX SPURIA.

Q. 119. *What is a Thrombus?*

A. It is an effusion of blood into the cellular substance, from a rupture of a vein immediately below the cutis vera; or, by drawing the skin over the orifice in the vein, when performing the operation of blood-letting, a Thrombus is produced. The blood sometimes coagulates, and forms a cyst for itself, by indurating the surrounding cellular substance.

Q. 120. *How is a Thrombus to be treated?*

A. When a Thrombus occurs immediately after the operation of blood-letting, slackening the ligature may prevent any further effusion into the cellular substance; and

the quantity already effused may be absorbed. When this is not the case, recourse is generally had to astringents and other stimulant applications, such as brandy and a solution of crude sal ammoniac, which is rubbed upon the part. Sometimes, however, the blood is coagulated; in such cases absorption cannot take place, therefore the tumour is to be opened, and the coagulated blood removed.

VAR. C. HÆMORRHOIS*.

Syn. PILES.

Q. 121. *What is an Hæmorrhoids?*

A. By Hæmorrhoids is understood a morbid dilatation of the veins about the anus, when they are distended to a great degree. They occasion violent pain and tenesmus, by the irritation they occasion in the rectum. They are at first elastic and compressible, when they are denominated BLIND PILES. By degrees, however, they distend, until at last they burst, when they get the denomina-

* Hæmorrhoids, Cullenus, Sagarus. Marisca, Sauvagesius.

tion of BLEEDING PILES. The discharge of blood from them does not lessen their size. By the blood effused from them into the cellular substance, they acquire a harder and more solid consistence.

Q. 122. *What is the cause of Hæmorrhoids?*

A. By some they were supposed to be a critical discharge, for removing morbid matter from the system, and were in this manner, serviceable in removing and preventing plethoras. Any exciting cause is found to produce them, such as compression upon the vessels of the anus, by preventing the return of their blood into the head. In this way costiveness, gravid uterus, scirrhus tumours of the bladder, and prostate gland, are found to be so often causes of Hæmorrhoids.

Q. 123. *How is Hæmorrhoids to be cured?*

A. When Hæmorrhoids is occasioned by costiveness, laxatives are proper. When the parts are inflamed, the application of leeches to the part is found to be of service,
applying

applying the same time some astringent solution, such as that of oak bark, saccharum saturni, or the like. When Hæmorrhoids are occasioned by pregnancy, changing of posture may have some effect. When they arrive to a considerable size, so as to produce great irritation, the removal of them by the knife, or by ligature, becomes necessary. The first of these may be used when their bases are broad; simple dressings are to be applied to them afterwards. But when the bases are narrow, removing them by ligature answers better, and little or no dressings are required.

HEMATOCELE SCROTI*.

Q. 124. *What is an Hematocele Scroti?*

A. It is a tumour occasioned by blood extravasated in the scrotum, tunica vaginalis, or in the spermatic chord, occasioned by some external violence, as blows inflicted on the scrotum, or neighbouring parts, producing a rupture of vessels.

§ Oscheophyma, *Sauvagesius*, Hernia Sanguinea, *Celsus*.

Q. 125. *How is Hematocele Scroti to be cured?*

A. By the use of friction and astringent applications to the part, absorption of the effused blood may take place. But when the blood is clotted, this is rendered impossible; in such a case, therefore, the blood is to be removed, as recommended for the radical cure of hydrocele (Q. 83).

HEMATOCELE PECTORALIS.

Syn. EFFUSIONS OF BLOOD WITHIN THE
PLEURA.

Q. 126. *What is the cause of Effusions of Blood within the Thorax?*

A. Wounds inflicted with sharp pointed instruments, penetrating the cavity of the blood vessels. Sharp pieces of fractured bones may have this effect. Violent exertions of the lungs, in coughing and sneezing, or the like. The acrid matter of ulcers may also corrode holes in the blood vessels.

Q. 127.

Q. 127. *How is Hematocele Pectoralis to be cured?*

A. When the symptoms, attending collections of fluids within the thorax (Q. 78), appear immediately upon some injury or wound of the thorax; and when there is reason to suspect blood to be effused, it is to be removed in the same manner as recommended for collections of pus (Q. 64). But when the extravasated blood is found coagulated, injections of warm water are recommended to be thrown into the thorax to dissolve it. This, however, must be used with the greatest caution. The patient, during the cure, should be kept on a lower diet.

HEMATOCELE OCULI*.

Q. 128. *What are the causes of Effusions of Blood within the Eye-ball?*

A. External injuries, producing a rupture of vessels, occasion an effusion of blood into

* Ophthalmia Traumatica, Meyzerey.

the chambers of the eye. It may be likewise owing to inflammation, or to a putrid diathesis of the system.

Q. 129. How are Effusions of Blood, within the cavity of the eye, to be treated?

A. When such effusions take place, they mix with the aqueous humour, and render it so opaque, as to prevent the rays of light from falling upon the retina. A removal, therefore, of the aqueous humour, is to be executed in the same manner as recommended for dropical swellings of the eyeball (Q. 95). The aqueous humour, with the blood effused amongst it, being removed, the eye is to be covered by a soft compress of lint, moistened in a weak solution of saccharum saturni.

HEMATOCELE ARTICULI.

Q. 130. How are Effusions of Blood within the Joints to be treated?

A. As effusions of blood, within the capsular ligaments of the joints, depend upon
the

the same causes, as effusions of blood within the other cavities of the body, the method of cure must be the same, viz. By removing them. This is executed in the same manner as recommended for dropfical swellings of the joints (Q. 97).

GEN. VII. *PULTACEA*.*.

ATHEROMA §.

Q. 131. *What is an Atheroma?*

A. It is an encysted tumour, containing matter of the consistence of dough, situated on those parts of the body that are less supplied with fat.

Q. *How is an Atheromatous Tumour to be treated?*

A. When the tumour happens to be of a large size, so that the admission of the air into the cavity of the sac might prove dan-

* *Lupia, Sauvagesius, Cullenus, Blancardus, Sagarus.*
Encystis, Vogelius.

§ *Atheroma, Linneus.*

gerous, by producing too high a degree of inflammation, a small opening is to be made, so as to allow the contents of the tumour to escape; but when the contents of the tumour are of such consistence, as not to pass out by the ordinary incision, the opening is to be enlarged, or the whole of the sac with its contents may be removed. Very often the sac adheres but slightly to the contiguous soft parts. The sac is generally more easily removed, after the contents of the tumour have been previously discharged.

MELICERIS *.

Q. 133. *What is a Meliceris, and how to be treated?*

A. It is a tumour of a similar nature with atheroma, but containing matter of the consistence of honey, and is exactly to be treated in the same manner as recommended for atheroma.

* Meliceris, *Sagarus*. Lupia Meliceris, *Sauvagesius*.

STEATOMA*.

Q. 134. *What is a Steatoma?*

A. It is a tumour consisting of fatty matter, surrounded by a cyst formed of the contiguous cellular substance indurated. It is distinguished from atheroma (Q. 131), by its being for the most part of a solid consistence, it moves more readily under the skin, and its surface is generally more unequal. It may be also distinguished from its occurring in those parts which are more commonly covered with fat.

Q. 135. *How is a Steatoma to be cured?*

A. By removing it by the knife. An incision should be made longitudinally on the most prominent part of the tumour. There is no occasion for removing any portion of the integuments, except when the tumour is of too great a size, and the skin for covering the wound is too plentiful. In such cases two semilunar incisions are to

* Steatoma, *Sagarus*.

be made, and a small piece from the center is to be removed.

RANULA.

Q. 136. *What is a Ranula?*

A. It is a small tumour situated at the frœnum of the tongue, containing matter of various degrees of consistence. Sometimes a fatty matter, at other times stoney concretions are found within them. They often acquire such a size as to prevent mastication and speech, which is only a croaking noise. Sometimes such tumours burst of themselves and form an ulcer difficult of healing.

Q. 137. *How is Ranula to be treated?*

A. By making an incision into such tumours when they happen to be of a fatty nature, and discharging their contents. In the removal of such tumours the greatest caution is necessary to obviate the hemorrhagy, by taking some spirits of wine or some astringent solution in the mouth to
produce

produce a constriction of the vessels. When the tumour bursts of itself and leaves an ulcer with callous edges, the callous edges are to be removed by the scalpel, and a cure is soon to be obtained.

ORD.

ORD. III. *ECTOPIA**.GEN. VIII. *HERNIA*†.

Q. 138. *How is Hernia distinguished from every other genus of tumour?*

A. Hernia is distinguished from hydrocele by Q. 79. It is distinguished from swellings of the spermatic chord by Q. 88. It may be also confounded with other swellings of the groin, as venereal buboes. By a little attention it may be distinguished from these, by the incompressible hardness attending such tumours at first, and by feeling a fluctuation in them when matter is once fully formed. It is also easily distinguished from an enlarged state of the testicle, by the tumour being heavy in proportion to its bulk, and from the exquisite pain that is generally produced upon touching the epididimis. Hernia may also be distinguished by the pain and tension of

* *Ectopia*, Sauvagesius, Sagarus, Cullenus.

† *Hernia*, Cullenus, Pott, Linnæus, Gaubius.

the abdomen, and obstructed bowels, which is one of the essential characters of Hernia. By attending also to the cause, the suddenness of the appearance, the pain, the feel of air when the intestines are protruded, the softness and inequality that are perceived when the omentum is pushed out, and by observing the size of the tumour always to increase upon coughing, crying, or the like, we can seldom fail to form a just diagnosis.

Q. 139. *What are the causes of Hernia?*

A. Whatever diminishes the cavity of the abdomen pushes the bowels out of their natural situation, such as laughing, crying, sneezing, gravid uterus, &c. and every unusual exertion, producing a want of tone in the muscles and integuments of the abdomen, becomes also a cause of Hernia. Some alledge that persons living on oily food are more liable to Hernia.

Q. 140. *From whence arises the danger of Hernia?*

A. From the obstruction of the fœces in the alimentary canals, and from the impediment

pediment given to the free course of the circulation in the protruded parts by the openings through which the bowels escape, forming a constriction on them, and occasioning what has been termed *strangulation* of Hernia. When such occurs mortification is evidently the consequence, and the danger is exceedingly great, particularly when any organ essential to life is protruded; and though a small portion of the omentum only is protruded, still the danger attending it is considerable, from its paving the way for the protrusion of some bowel of more immediate importance to life, by enlarging the dimension of the opening.

Q. 141. *What are the symptoms of Strangulated Hernia?*

A. An elastic colourless swelling is always discovered in the part affected. Nausea and vomiting generally take place, and the patient is hot and restless. No discharge is procured by stool after these symptoms have continued for some time. A distressing convulsive hiccup ensues, when

when all of a sudden the rest of the symptoms disappear, which sometimes will lead the patient to imagine that he is recovering; but when this occurs it is a sign of approaching death. The pulse now becomes slow and interrupted; a cold sweat covers the extremities, the swelling and hardness of the abdomen subside, the eyes acquire a kind of languor, and the integuments of the abdomen a livid colour. A kind of crackling noise, like a dried bladder, is felt all over the body. The protruded parts are now returned with ease. At last subfultus tendinum occurs, and death closes the scene.

Q. 142. How is a Cure of the Strangulated Hernia to be treated?

A. By attempting to reduce the bowels as soon as possible. In executing this, it must be always observed, that the parts last protruded must be first reduced. The patient is to be laid in an horizontal posture and the protruded parts reduced by the finger of the surgeon pressing gently in the direction of the opening, while with the
other

other hand he supports the tumour. When the surgeon fails to reduce it in this way, the posture of the patient is to be changed; he is to be raised on his head and shaken. The bowels have been sometimes reduced in this manner. Several remedies have been recommended to remove the stricture, at the openings in the rings of the abdominal muscles, in order to facilitate the reduction, from an opinion that this constriction was of a spasmodic nature. With this view blood-letting has been recommended. Little can be, however, expected from its antispasmodic effects upon the tendinous rings of the muscles. It may be of some service in diminishing the contents of the tumour, and in producing a deliquium animi. By extracting a quantity of blood as quickly as possible, and suddenly relaxing the ligature, a deliquium animi may be produced, particularly if the patient be kept in an erect posture. In this manner a reduction was effected, often after every other method had failed. Some have recommended warm poultices to be applied to the part, to relax the constriction, but this method

method can never be with propriety attempted, as heat always tends to increase the size of the tumour, and of consequence to render the reduction more difficult. Some recommend the application of cold and snow * to the part, in order to diminish the size of the tumour. Stimulant purgatives may have some effect in producing a reduction, and in removing costiveness. Stimulant injections are, however, found to answer best, such as tobacco smoke. Opium injected by the anus is sometimes attended with good effects. When, notwithstanding every attempt, a reduction cannot be accomplished, the only expedient left is to remove the constriction by a surgical operation.

* *Dr. Alex. Monro, Sen.*

BUBONOCELE *.

Syn. INGUINAL HERNIA, GROIN RUPTURE.

Q. 143. *What is a Bubonocèle?*

A. It is a tumour formed in the groin by a protrusion of some of the bowels, through the rings of the external oblique muscles. The varieties of this species of Hernia derive their names from the different bowels that happen to protrude, as

VAR. A. EPIPLOCELE, when the omentum is protruded.

B. SPLENOCELE, when the spleen is protruded.

C. ENTEROCELE, when the intestines protrude.

D. CYSTOCELE, when the bladder protrudes.

E. HEPATOCELE, when the liver is protruded.

† Bubonocèle, *Vogelius, Sagarus.*

F. HYSTEROCELE, when the uterus protrudes.

G. HERNIA CONGENITA *, when any part of the protruded bowels is in contact with the body of the testis, and the tunica vaginalis forms the herniary sac. It is more common in infants, owing to some parts of the bowels getting down with the testicle before the opening through which the testicle passed was obliterated. The passing down of the bowels, in this manner, prevents the sides of the opening from coming in contact.

Q. 144. When Bubonocoele has subsisted for some time, and when from the symptoms (Q. 141) we are certain that strangulation has taken place, and that a reduction (Q. 142) is become impossible, how is the Constriction to be removed by a chirurgical operation?

A. The patient, having emptied bladder, is to be placed upon a table. An incision is to be now made cautiously, in a longitudinal direction, along the tumour. The

* Congenial Rupture, Pott.

cellular substance is to be directed by gentle strokes until the peritoneal sac appears, which is now to be opened by gentle scratches, to avoid hurting any of its contents. For sometimes the spermatic vessels have been found on the anterior parts of the tumour, and sometimes the testis continues in the abdomen during life. As soon as an opening is made into the sac, it is distinguished by a blunt probe, which easily passes in, if the sac be divided. The opening is to be enlarged so as to admit of the fore-finger of the operator's left-hand to be introduced, which serves as a directory for conducting a straight probe-pointed scalpel, with which the sac is to be divided through its whole length. The bowels are now to be examined, and if they are not in a gangrenous state they are to be immediately returned into the abdomen. When adhesions take place between the sac and bowels, they are to be cautiously separated by the fingers alone. But when one portion of intestine adheres to another, no attempt is to be made to disengage them. When portions of the omentum adhere, greater freedom

freedom may be used in disengaging them. When it happens also to be in a mortified state, a portion of it may be removed by the ligature. When a portion of the intestines is found mortified, all that can be done, is to endeavour to produce an adhesion of the end of the intestine above the mortified part to the external wound. The fœces may in this way, be, for a considerable time, discharged by the wound. But when a considerable portion of the intestines is found mortified, all that can be done, is to remove the mortified part, and to draw, by means of ligature, the upper end within the under, and then to endeavour, by a ligature, to retain them in this situation, until an accretion of the sides takes place. The chance of succeeding in such a case, is exceedingly small. There are, however, some cures related by authors, occurring in this manner. The bowels being replaced, and the external wound dressed with soft charpee, the patient is to be laid in bed in such a manner as to have the pelvis elevated above the trunk. The succeeding inflammation is to be cautiously

guarded against by a strict antiphlogistic regimen. In performing this operation another method has been suggested by Monsieur PETITE, and strongly recommended by Dr. MONRO, of returning the bowels without opening the sac its whole length, but merely dilating the ring, or making a small cut into the neck of the sac, if the constriction seems to take place there (which is often the case). By this method the contents of the sac are not exposed to the external air, and the high degree of inflammation, which always attends the exposure of the bowels to the external air, is prevented.

Q. 145. *Which of these two methods (Q. 144) ought to be preferred?*

A. When the strangulation is of short standing, and when the constriction at the neck of the sac is the sole cause of the failure in the reduction, and when we are certain that mortification of the bowels has not as yet taken place, Monsieur Petite's method, of all others, ought to be preferred.

red. But when the hernia is of long standing, and there is reason to suspect adhesions to take place betwixt the sac and bowels, or that mortification has already taken place, or that some filaments run across the sac and prevent the reduction, we are to lay open the sac. In some cases strangulation takes place, not at the ring of the muscle, but within the sac. Returning the sac unopened, in such a case, would be productive of no advantage, as the strangulation still subsisted.

Q. 146. What prognosis can be given of the operation for Hernia?

A. The danger from the operation is not considerable when it is performed early. The danger always arises from its being delayed too long, for in some cases mortification has ensued within twelve hours after the strangulation took place, while in others the strangulation has been known to subsist for several days, and no mortification ensuing.

HERNIA VENTRALIS*.

Syn. VENTRAL RUPTURE.

Q. 147. *What is a Ventral Hernia, and how is it to be treated?*

A. It is a protrusion of some of the bowels through the interstices of the muscles of the abdomen, owing to a partial debility of them, or to any violent exertion or injury, producing a loss of continuity between them. Its varieties may be the same as those of bubonocoele (Q. 143); the stomach may also protrude. The mode of treatment is exactly the same as that recommended (Q. 142 and 144) for bubonocoele.

MEROCELE*.

Syn. CRURAL, FEMORAL HERNIA.

Q. 148. *What is a Merocele?*

A. It is a protrusion of the bowels in the

* *Hernia Abdomenalis, Plenck.*

† *Merocele, Vogelius. Opodeocoele, Sagarus.*

arch below Paupert's ligament, where the great blood vessels are transmitted to the thigh. It arises from the same causes as that of hernia in general, and its varieties are the same with bubonocoele (Q. 143).

Q. 149. *How is the Operation for Strangulated Merocele to be performed?*

A. In performing this operation the greatest caution is necessary to avoid a number of considerable blood vessels. The first incision is to be made in an oblique direction outwards, and in a line from the umbilicus. The ligament being brought in view, it is to be directed by gentle scratches until a thin lamella only remains, which is to be torn by the finger inserted below it. In this manner the femoral artery running below is avoided, and the spermatic vessels and epigastric artery crossing one another are in no danger of being touched. The bowels are now to be reduced by moderate pressure, and retained by a bandage. But it must be observed, that the same bandage does not answer here,

as in bubonocoele. A thin leathern strap covered with some adhesive plaister has been found to answer best.

EXOMPHALOCELE *.

Syn. UMBILICAL HERNIA, NAVEL RUPTURE.

Q. 150. How is the Operation for Strangulated Exomphalocoele performed?

A. The operation is to be performed in the same manner as recommended for bubonocoele (*Q. 144*). When this affection is the consequence of the gravid uterus, a cure is generally obtained as soon as delivery is effected. When the affection occurs in young children, applying a bandage with some solid body in the head of it, to act against the umbilicus, is found to prevent further protrusion of any of the bowels, after they have been once returned.

* Exomphalos, *Pott*. Oniphalocoele, *Sagarus*.

HERNIA OVULARIS*

HERNIA OF THE OVAL HOLE, THYROID RUPTURE.

Q. 151. *How is the Operation for Strangulated Hernia of the Oval Hole performed?*

A. As there are considerable blood-vessels transmitted through this hole, any portion of bowel slipping along with them, cannot be so readily reduced, as the use of sharp-pointed instruments cannot be admitted with the same propriety here as in other cases of Hernia. It has been recommended, to dilate the opening by a blunt instrument, so as to effect a reduction.

ISCHIATOCELE*.

Syn. ISCHIATIC RUPTURE.

Q. 152. *What is an Ischiatocele; and how is it to be treated?*

A. It is a protrusion of some of the

* Hernia Ovularis, *Plenck*. Enterocoele Ovularis, *Vogelius*.

† Ischiatocele, *Vogelius*. Hernia Ischiatica, *Plenck*. Ischiocele, *Sagarus*.

bowels

bowels through the Ischiatic notch of the ossa innominata. It is said to be cured by reduction, as recommended for bubonocoele (Q. 142 and 144.).

ELYTROCELE *.

Syn. VAGINAL HERNIA.

Q. 153. *What is Elythrocele; and how is it to be treated?*

A. It is a protrusion of the bowels, through the vagina, owing to a suppression of urine. The bladder is sometimes found to protrude. When this occurs a fluctuation of water is perceptible to the touch. By evacuating the urine often, such a kind of hernia is obviated. It should be persisted in for some time, to prevent further returns of the affection, and until the parts have sufficiently recovered their tone. Various substances have been recommended, to be introduced into the vagina, to act against, and resist the further protusion of the bowels.

* Elythrocele, *Vogelius*. Hernia Vaginalis, *Plenck*.

GEN. 9. *PROLAPSUS**.

HYSTEROPTOSIS†.

Syn. *PROLAPSUS UTERI*; FALLING
DOWN OF THE WOMB.

Q. 154. *What is an Hysteroptosis?*

A. It is a falling out of the uterus, occasioned by a relaxation of the ligamenta lata of the uterus, or by too much straining during parturition, and is easily discovered by the parts protruding beyond the vagina; or, when the disease has not advanced this length, by attending to the obstruction, and painful sensation, occasioned by the prolapsed parts. This affection seldom occurs before child-bearing; and is, for the most part, met with in advanced life.

Q. 155. *How is Hysteroptosis to be cured?*

A. By reducing the parts protruded by

* *Prolapsus*, *Linnaeus*, *Cullenus*, *Savagesius*, *Gaubius*.

† *Hysteroptosis*, *Sauvagesius*, *Vogelius*, *Sagarus*.

gentle pressure, while the patient is in a horizontal posture, and supporting the part afterwards by pessaries, which ought to be made of the lightest materials, finely polished, and in some degree compressible. These are to be retained by a proper bandage, until the parts recover their tone, which is affected by tonics, as wine, bark, and other astringent medicines. In this way a cure is soon completed, if the patient be young, and the affection of a recent nature.

EXANIA *

Syn. PROLAPSUS ANI.

Q. 156. *What are the causes of Exania?*

A. It may be occasioned by costiveness; by the action of irritating medicines, such as aloetics; or owing to hemorrhoidal swellings, (Q. 219.) or to any stimulants applied to the inside of the rectum, so as to increase its action.

* Exania, Sauvagesius, Sagarus.

Q. 157. *How is Exania to be cured?*

A. By reduction as soon as possible, and by retention, by a proper bandage, such as the one invented by Mr. Gouch. The reduction is to be effected by supporting the tumour with the palm of one hand, while, with the forefinger of the other, the part of the gut least protruded is to be first introduced. The patient, during the reduction, is to be kept in a reclined posture. As soon as the bowels are returned, the bandage is to be applied. Such remedies, as tend to recover the tone of the parts most readily, are to be used. When the precluded parts become inflamed, from being exposed to the air, before attempting a reduction, the inflammation is to be alleviated by an antiphlogistic regimen (Q. 8.).

PARAGLOSSE *.

Q. 158. *What is a Paraglosse?*

A. It is a retroversion of the tongue into

* Paraglosse, *Sauvagesius*. Linguae Inflatio, *Galenus*,
Linguae Extrusio, *Cambius*.

the fauces, and almost occasioning suffocation by its pressure upon the epiglottis. The affection is, for the most part, accidental, and by introducing the forefinger of the right hand, into the fauces below it, can be easily returned into its natural situation.

HYPOSTAPHYLE.*

FALLING DOWN OF THE PAP OF THE THROAT.

Q. 159. *What is an Hypostaphyle?*

A. It is an elongation, or enlargement of the uvula, occasioned either by inflammation produced by catarrh, or owing to a paralysis of it.

Q. 160. *How is Hypostaphyle to be treated?*

A. Astringent gargles have been re-

* Hypostaphyle, *Sauvagesius*. Casus Uvulæ, *Dioners*. Inflammatio Uvulæ, *Celsus*. Prolapsus Uvulæ, *Nenterus*, Œdema Uvulæ, *Gorterius*. Uvulæ Nimium Producta, *Heister*.

commended,

commended, to allay the inflammation, if present, and to increase the tone of the parts. When the affection does not yield to such remedies, and distressing irritation is occasioned in the throat, so as to produce constant cough and vomiting, it is to be removed altogether, by a ligature passed round its root, so as to obstruct the circulation in the uvula, by tightening the ligature. In a short time it begins to mortify, and then drops off.

EXOPHTHALMIA.*

PROTRUSION OF THE EYE BEYOND THE SOCKET.

Q. 161. *What is an Exophthalmia?*

A. It is a protrusion of the Eye-Ball beyond its Socket, occasioned by abscesses (Q. 60.), dropfical swellings of the eye (Q. 94.), tumour laying behind the eye, such as, an enlargement of the lachrymal

* Exophthalmia, *Sauvagesius*.

gland;

128 *Tumours from Displacement.*

gland; or it may be pushed out of its situation by external violence.

Q. 162. *How is a case of Exophthalmia to be cured?*

A. When the ball of the eye is preternaturally enlarged, by water or pus formed within its cavity, it is to be treated in the same manner as recommended (Q. 61. 95.) for the removal of such affections. When tumours are found to be the occasion of the protrusion, they are to be removed, and then a reduction is easily completed. When the eye is pushed out by external violence, if the optic nerve is not divided, the eye is to be immediately replaced, and the succeeding inflammation is to be guarded against by a strict antiphlogistic regimen.

EXTROPIUM*.

Q. *What is Extropium?*

A. It is a gaping out of the eye-lids,

* Blepharoptores, *Sauvagesius*, *Sagarus*. Extropium, *Linnaeus*, *Vogelius*.

owing

owing to an enlargement of the ball of the eye, by dropfical fwelling (Q. 94.), or to a laxity of the part in old age. It may arife alfo from the cicatrix of an old wound, or abfcess: Hence it is frequently the confequence of the fmall-pox.

Q. 164. *How is a cafe of Extropium to be treated?*

A. The method of cure muft, in a great measure, depend upon the caufes inducing the complaint. When it is the confequence of dropfical fwelling of the eye, nothing answers fo well as fcarifying or puncturing the part. When it arifes from inflammation, the antiphlogiftic regimen (Q. 8.) is to be ufed. When from laxity, owing to old age, aftringent and tonic remedies are to be ufed; and when from an old cicatrix, nothing answers fo well as a divifion of the contracted fkin, by the knife, endeavouring, at the fame time, to prevent inflammation as much as poffible.

ENTROPIUM*.

Q. 165. *What is an Entropium?*

A. It is an inversion of the ciliæ of the eye, owing to a spasmodic contraction, or to a constriction of some of the fibres of the orbicularis muscle, pushing the hairs of the eye-lashes against the eye-ball, and is productive of much uneasiness. Tumours pressing upon the palpebræ, or a relaxation of the skin itself, may have this effect also.

Q. 166. *How is a Case of Entropium to be cured?*

A. The method of cure is the same as that recommended (Q. 164.) for Extropium. When the uneasiness of the affection arises merely from a derangement among the hairs themselves, they are to be plucked by the root with a small forceps, and the

* Blepharoptosis, Sauvagesius, Sagarus. Entropium, Vogelius.

direction of the new ones regulated by some adhesive plaister, fixing them to the palpebræ.

GEN. 10. *LUXATIO* *.

Syn. DISLOCATION.

Q. 167. *What are the Diagnostic Symptoms of Luxation in general?*

A. A degree of inflammation always takes place, the pain attending which is sometimes so acute, as to occasion convulsive and spasmodic affections, by the compression of the nerves upon the part, by the displaced ends of the bones. The shape of the joint is much altered, and the motion of the limb much impaired.

Q. 168. *What prognosis should be given of Luxations in general?*

A. The prognosis must always depend

* *Luxatio*, *Linnaeus*, *Vogelius*, *Cullenus*, *Heisterus*, *Vilars*, *Exarthrema*, *Diastasis*, *Savaugesius*, *Sagarus*.

upon the structure of the joint ; the degree of violence producing the affection ; the succeeding inflammatory symptoms, and duration of the injury. After dislocations have subsisted for some time, the socket diminishes in size, and so cannot receive the end of the dislocated bone. The reduction is more difficult in young than in elderly persons, owing to the strength of the muscles being greater in young persons.

Q. 169. How are Dislocations in general to be treated ?

A. The luxated part is to be exactly replaced in its former natural situation. It is to be retained in this state, until the surrounding parts have recovered their tone, by a proper bandage ; and any symptom tending to prevent the cure is to be obviated. In order to render the reduction easy, the whole of the muscles surrounding a joint, are to be relaxed as much as possible, the dislocated ends of bones are to be immediately disengaged from the contiguous

guous bones, or from any unnatural cavity in which they may be lodged or grasped. To do this, moderate extension is necessary; but this can never be attempted with propriety, so long as the dislocated bone is detained by a projecting process of another bone. When the bone is, however, sufficiently disengaged, it springs immediately into its natural place, by the action of the contiguous muscles. When the inflammatory symptoms run high, and when the swelling is considerable, reduction of dislocated bones is never to be attempted, until these in some measure subside.

OSSIUM CAPITIS*.

Syn. LUXATION OF THE BONES OF
THE HEAD.

Q. 170. How is Luxation of the Bones of the Head to be treated?

A. When the futures divide from one ano-

* *Diastrasis Raphica, Sauvagesius. Diachalasis, Vogelius.*

ther, all that can be done is, to replace them as close together as possible, and to endeavour to retain them, by applying a proper bandage round the head.

OSSIUM NASI*.

BONES OF THE NOSE.

Q. 171. *How is Luxation of the Bones of the Nose to be treated?*

A. When one of the bones have been elevated above the other, it is to be depressed by the finger, until it is on a level with the other. When one of them is depressed within the nostrils, it is to be assisted by the end of a spatula, and kept in this situation by means of a tube, covered with lint, passed into the nostrils, and secured by a proper bandage, so as to allow respiration to go on freely.

* *Diastasis Hamonica, Sauvagesius. Diastasis Ossium Nasi, Leuret.*

OSSIS MAXILLÆ INFERIORIS.

DISLOCATION OF THE LOWER JAW.

Q. 172. *How is a Dislocation of the Lower Jaw to be treated?*

A. As this Dislocation can only happen forwards and downwards, the reduction of it is to be affected by passing both thumbs, well covered with linen cloth, into the mouth, the head being previously well secured by an assistant. The jaw is now to be pushed forward and downward, until it is entirely disengaged from the ossa mali. As soon as this is effected, the bone, by gentle pressure, will immediately spring back into its natural situation by the action of the muscles: the thumbs are to be immediately withdrawn; when one side is only luxated, the pressure, in disengaging the bones, is to be applied to the luxated side only.

OSSIUM CAPITIS ET COLLI.

BONES OF THE HEAD AND NECK.

Q. 173. How is a case of Dislocation of the Bones of the Head and Neck to be treated?

A. The patient being laid on a bed, the surgeon is to raise the head gradually from the chin, until it is in a straight line with the body, which is to be supported by an assistant. The surgeon now gradually extends the head. As soon as a crack is heard, the dislocation is reduced, and the surgeon is to desist from extending any further. The patient is now to be laid down in the bed, and the head is to be supported by a proper bandage.

OSSIUM SPINÆ.

LUXATION OF THE SPINE.

Q. 174. How are Dislocations of the Spine to be distinguished?

A. By the degree of violence producing them,

them, which must, in every case, be very considerable, before a luxation of the vertebræ takes place; by a degree of paralyfis affecting the whole of the parts below the injured place; by a total suppression, or involuntary discharge of urine and fœces; and by the distorted state of the body, a diagnosis may be formed of the nature of the affection.

Q. 175. How are Luxations of the Spine to be treated?

A. When the vertebræ are pushed inwards, (which is the most common manner they can be luxated) after bending the body gently over a cask, the bone generally regains its natural situation. Some have advised to make an incision upon the luxated part, and to lay hold of the spinous process of the bone with a forceps, and so pull it gently into its situation. When the os sacrum is luxated, it is to be treated in the same manner. When the os coccygis is luxated, whether from external violence, or from a laborious delivery, it is to be reduced, by introducing

138 *Tumours from Displacement.*

introducing one of the fingers into the rectum, and by assisting with the fingers of the other hand, on the outside, using at the same time moderate pressure.

OSSIS CLAVICULI.

Syn. LUXATION OF THE COLLAR BONE.

Q. 176. How is a Luxation of the Collar Bone to be treated?

A. It is easily reduced by pressure with the fingers, and should be kept in its situation by a proper bandage, taking care at the same time not to raise the arm, as its weight serves to keep the bone in its place. This affection seldom occurs,

OSSIUM COSTARUM.

Syn. LUXATION OF THE RIBS.

Q. 177. How is a Case of Dislocation of the Ribs to be treated?

A. As this species of dislocation can only
take

take place inwards, little can be done to relieve it. Laying the patient forward on a cask, while at the same time the vertebræ are pushed inwards, will sometimes answer. When the bones can be replaced in this manner, they are to be kept in their situation by the application of a proper bandage applied round the trunk with such straitness as not to incommode respiration.

OSSIS HUMERI.

Syn. LUXATION OF THE SHOULDER.

Q. 178. *In what direction do Luxations of the Humerus most commonly take place?*

A. This must in a great measure depend upon the manner the injury is inflicted. In general, however, dislocations of this bone take place in that direction where it meets with less resistance. Hence it is more frequently into the axilla, where the end of the bone forms a tumour. The bone can never be pushed upwards without a fracture of the acromion. This may,
in

in some cases, happen, when the person happens to fall upon the ulna, or when a stroke is given to the bone upwards. Dislocations of the humerus sometimes also take place downwards and backwards.

Q. 179. How is a Dislocation of the Humerus reduced?

A. This must depend upon the situation of the head of the luxated bone. In every case of dislocation of the humerus, the rule laid down (*Q. 169.*) for dislocation in general is to be observed, by disengaging the bone from any projecting process of the contiguous soft parts. Various machineries have been invented and recommended for dislocations of the humerus. Some for extending the arm, and others for reducing it by pressure. Of the latter kind, is the rolling-pin placed in the axilla for raising the end of the bone. A towel passed below the dislocated limb, and round the surgeon's neck, is of this kind also; but it is evident such can have no effect, unless the bones are first sufficiently disengaged. Another method has been recommended, of making the
the

the surgeon sit upon the ground, to press the end of the bone into its place, by his heel, while, with both hands, he extends the arm of the patient. To produce the necessary degree of distension, various methods and different machinery have been recommended; such as suspending the patient by the arm on a ladder, or the top of a door; raising the patient, by the arm and leg, from a feather bed, laid on the floor, by means of pulleys, secured in the roof of the room by fixing a knot on the rope: A sudden jerk is occasioned, when the knot arrives at the pulley, upon letting the rope run. The arm has been, in this manner, reduced, after every other method had failed. It is to be observed, however, that the extension of the arm ought to be made in the most gradual manner. When the luxation is of short duration, after first securing the scapulæ, and relaxing the muscles of the arm properly, as the tendon of the biceps muscle, passing along in the groove of the bone, is often the occasion of the bone's not finding ready access into its natural situation. The force of one arm of the surgeon, in distending, is

sufficient in many cases. When greater extension is, however, necessary, it may be obtained by assistant pullies or by Mr. Treak's instrument. As soon as the bone has slipped into its place a crack is heard, and the patient is suddenly relieved. The arm now should be supported by a proper sling until the parts have sufficiently recovered their tone.

OSSIS ULNÆ.

ELBOW JOINT.

Q. 180. *In what direction do Luxations of the Ulna most commonly take place?*

A. They happen upwards and backwards. When the former takes place, the bone is on the anterior part of the humerus, and, when the latter occurs, the olacranon is on the back part of the humerus.

Q. 181. *How is Dislocation of the Ulna to be treated?*

A. When the dislocation happens backwards, the muscles are to be relaxed as much

much as possible ; then a gradual extension is to be made, at the same time moderately bending the arm, in proportion to the extension. In this manner a reduction is effected. But when the dislocation takes place upwards, the extension must be made in a straight direction, and the arm is not to be bended. When the extension is so considerable, that the bones of the arm have already passed the lowest part of the humerus, by relaxing the extension, the bones are immediately brought into their proper situation, by the action of the muscles. As soon as the reduction is in this manner completed, the arm is to be moderately bent, in an unconstrained and moderately curved posture. When the ulna and radius are dislocated from one another, after reducing them, they are to be kept together by two splints, and the arm is to be supported by a proper sling hung round the neck.

OSSIUM METACARPI, CARPI, ET DIGITORUM MANUS.

Q. 182. How are Dislocations of the Metacarpal, Carpal, and Bones of the Fingers to be treated?

A. After stretching the arm upon a table the surgeon is to endeavour to push the bones of the carpus into their natural situation. The bones of the metacarpus are to be treated in the same manner. When any of the fingers are dislocated, after securing the phalynx, from whence the dislocation happened, by an assistant the surgeon is gradually to extend the other phalynx, after he has previously raised it from the contiguous bone.

OSSIS FEMORIS.

Syn. LUXATION OF THE THIGH BONE.

Q. 183. In what manner do Luxations of the Os Femoris most frequently take place?

A. They occur upwards and forwards,
downwards

downwards and forwards, and directly downwards. When the first of these occur, the ligament is shortened, and the head of the bone lies upon the ossa pubis. The great trochanter is also felt on the anterior part of the thigh, and a vacancy is observed in the acetabulum. When the second variety occurs, the head of the bone is pushed into the foramen ovale. This is the most frequent kind of luxation. In this state the leg appears longer than in the natural state. The end of the femur is felt in the foramen ovale, and the knees and toes are turned outwards.

Q. 184. *How is Dislocation of the Os Femoris distinguished from a Fracture of the Neck of the Bone?*

A. Besides the usual symptoms of fracture the leg is much shorter, owing to the bone being pushed upwards, by accidents of this kind occurring from falls on the knees. But in dislocations of the thigh joint the leg is, for the most part, considerably lengthened, the toes are turned outwards, a vacancy is observed at the seat

of the acetabulum, and a tumour from the round end of the bone, is felt in the groin.

Q. 185. How are Dislocations of the Os Femoris to be treated?

A. When the head of the bone gets into the foramen ovale, the first step in the reduction is, to endeavour to relax the muscles as much as possible. Then by moderate extension to endeavour to disengage the end of the bone from its cavity. As soon as this is effected, the bone is to be drawn upwards and inwards into its socket. A reduction is in this manner generally effected. Unless the end of the bone be above the acetabulum, no extraordinary extension is necessary. But when the want of success in the reduction is owing to a projecting portion of the acetabulum laying hold of the bone and preventing the necessary extension, the bone is to be elevated above this projecting part so as to disengage it, and the reduction is then easily effected.

OSSIS PATELLÆ.

Q. 186. *How is a Luxation of the Patella to be treated?*

A. As dislocations of the patella occur in various directions, according to the manner the injury is inflicted, the mode of treatment must vary a little. In reduction of the patella, in general, the leg is to be extended, and after elevating the bone a little, it is to be pushed into its natural situation, and retained by a bandage contrived for that purpose.

OSSIUM TIBIÆ ET FIBULÆ.

Q. 187. *How are Dislocations of the Tibia and Fibula to be treated?*

A. When the tibia is by some external violence separated from the fibula, all that can be done, is to replace them as nearly as possible in the natural situation, and to retain them afterwards by proper bandages.

Q. 188. How is Luxation of the Knee-Joint to be treated?

A. Compleat luxation of the knee-joint seldom happens, as it requires a considerable degree of violence to produce even a partial dislocation of these bones, owing to their being so strongly connected by considerable ligaments. When a dislocation of the knee occurs, it is to be reduced by relaxing the muscles, and disengaging the bones. The inflammatory symptoms, attending this dislocation, are to be particularly guarded against by a strict antiphlogistic regimen, as it hath been known to prove in some cases fatal.

OSSIUM MALLEOLI, TARSI ET METATARSI.

Q. 189. In what direction do Luxations of the Ankle-Joint take place?

A. They may occur in any direction. When they take place outwards, a fracture of the end of the fibula is occasioned. When the dislocation takes place forward
the

the foot is lengthened; and when it occurs backwards, the heel is shortened.

Q. 190. How are Dislocations of the Ankle, and of the Bones of Tarsus and Toes to be treated?

A. As dislocations of the ankle-joint occur most frequently, by the astralagus being forced inwards, moderately extending the leg answers best, after the muscles have previously relaxed. The os calcis is to be reduced in the same manner. The bones of the tarsus, metatarsus, and toes are to be treated, as recommended for the bones of the fingers (Q. 182).

ORD. CHRONICUS.

GEN. XI. GLANDULOSA.

SCIRRHUS*.

Q. 191. *What is a Scirrhus?*

A. It is a hard swelling, chiefly affecting the conglobate glands, at first of an indolent nature, but afterwards attended with sharp lancinating pains and heat, terminating sometimes in an ulcer, which discharges a thin acrid matter, excoriating the neighbouring parts, and arising from some fault of the constitution, or from some local cause, such as obstruction of a gland by inflammation (Q. 2). It is always at first of a local nature.

Q. 192. *How is Scirrhus-Cancer to be treated?*

A. No medicine has been as yet discovered that will cure this affection. Various remedies have been recommended,

* Scirrhus, Sauvagesius, Linnæus, Vogelius, Cullenus.

such as arsenic, cicuta, hyoscyamus, and many others, which injure the constitution materially, and are attended with very little effect. The only method of cure is to remove the diseased parts completely by the knife, when it can be executed with propriety, and consistent with life; especially if the disease has not already made considerable progress, and if one part of the body only is affected. Removing a portion of the diseased parts seems to do an essential injury, as experience has discovered, that the admission of cool air, into scirrhus swellings, hastens very much their pernicious effects upon the system. No operation, therefore, for the removal of scirrhus tumours is to be attempted, except when the whole of the diseased parts can be removed.

VAR. A. SARCOCELE *.

Syn. SCIRRHOUS TESTICLE.

Q. 193. *What is a Sarcocoele?*

A. It is a scirrhus of the testicle, and is

* Sarcocoele, *Vogelius*, *Platnorus*.

distinguished from inflammation of the testicle by Q. 16, and from hernia by Q. 138. It is readily distinguished from a venereal swelling of the testicle by its not yielding to a long continued course of mercury, and by its being afterwards accompanied by the symptoms of scirrhus (Q. 191).

Q. 194. *What are the Causes of Sarcocoele?*

A. From a venereal taint a degree of schirrosity is produced, which is said to be of the worst kind. Hydrocele of the tunica vaginalis is said to be another cause of scirrhus. External violence, inflammatory swelling of the testicle arising from sympathy, as from ulceration of the bladder, and often after the operation of lithotomy.

Q. 195. *What prognosis can be given of Sarcocoele?*

A. The success of the cure is greater in young than in old persons. If the disease has subsisted for a long time, without in-

1 creasing

creasing to any extraordinary size; it is supposed not to be so virulent. When ulceration has taken place on the testicle, the chance of success is less. When it is also in consequence of a blow, it is difficult to discuss; and when the patient is of a pale and weakly constitution the danger is more considerable, particularly when knots appear on the surface of the testicle. The success of an operation for the cure depends upon its being performed early. For when we are certain the whole of the disease cannot be removed by the knife no operation is to be attempted.

Q. 196. How is the Operation for the removal of Sarcocèle executed?

A. After placing the patient in a proper posture, an incision is to be made along the course of the spermatic chord to the inferior part of the scrotum. As soon as the spermatic chord is laid bare, it is to be surrounded by a ligature, which is to act as a tourniquet during the rest of the operation. The chord is now to be divided below the ligature, and the testicle is then to be

be dissected out from the neighbouring parts by a common scalpel. This being finished, the knot of the ligature upon the chord is to be untied, until the vessels of the chord are seen and secured. The ligature, acting as a tourniquet, is still to be allowed to remain, surrounding the chord; as, by tightening it, any sudden hemorrhagy occurring is easily obviated. The lips of the wound are now to be applied close together, and be covered by a quantity of soft charpee, and the whole is to be supported by a proper bandage, and the patient laid in bed. When pain or tension of the abdomen occurs, warm fomentations are to be applied to the region of the abdomen, and poultices to the fore above the lint.

VAR. B. MAMMÆ*.

SCIRRHUS OF THE BREAST.

Q. 197. *How is Scirrhus of the Mammæ distinguished?*

A. When first it is observed, it may be, per-

* Mastodynia Cancrofa, *Sauvagesius*. Cancer Mammærum, *Castro*.

perhaps, as small as a walnut. It may continue, in this state, for several months. By degrees, however, it acquires the size of the fist, and may continue in this state also stationary for some years. At last, however, a gnawing pain is felt, of a hot lancing nature, shooting towards the axilla. Upon examining the course of the lymphatics, the glands at the edge of the pectoral muscle are sometimes found hardened, also those of the axilla, which in some cases are found very much enlarged. The disease, at this period, sometimes gets the denomination of *Occult Cancer*. By degrees the skin, covering the tumour in the *Mammæ*, becomes discoloured, and at last an ulceration takes place, when the disease is said to terminate in an *Open Cancer*. Violent hemorrhages now often ensue, from the acrimony of the matter discharged corroding the vessels of the part. The excruciating pains are still aggravated, and the patient is at last cut off within the space of a year.

Q. 198. *How is a Scirrhus of the Mam-mæ to be treated?*

A. By removing the diseased parts, by an operation, a cure is sometimes obtained. But it is evident, (Q. 192.), that this can never be with propriety attempted, where there is not a possibility of removing the whole of the diseased parts completely. The state of the glands above the clavicle, and those of the neck and axilla, are to be particularly attended to.

Q. 199. *How is the Operation for the Extirpation of the Scirrhus Mammæ executed?*

A. The patient should be laid in a horizontal posture, and the surgeon seated. A transverse incision is then to be made, beginning at the axilla, and extending it nearly to the cartilago ensiformis. The integuments being dissected off the Mam-mæ, on both sides of the incision, the glandular substance is to be detached from the pectoral muscle; or, if it is found to adhere very firmly, a portion of the pectoral
muscle

muscle may be dissected out along with it. The surgeon should begin to detach the glandular part, at the sternum, and inferior part of the *Mammæ*, so that the part next the axilla comes to be the last to be divided. By this means the dividing of the principal blood-vessels is delayed, until the last stroke of the operation. The bleeding arteries being now secured, and the clotted blood accurately removed by a sponge, the integuments are to be brought over the wound, and retained by adhesive straps. The ends of the ligatures, that secured the bleeding vessels, are to be allowed to hang out between the lips of the wound. No dressings are to be applied between the integuments and surface of the sore. The wound is to be covered by pledgets of emollient ointment, and the whole of the dressings are to be secured by a scapulary bandage. When suppuration has formed, and has continued for some time, when the wound is near healed, an issue should be inserted in the arm of the opposite side.

VAR. C. PROSTATÆ.

SCIRRHUS OF THE PROSTATE GLAND.

Q. 200. *How is a Scirrhus of the Prostate Gland to be treated?*

A. When Scirrhusities of the Prostate Gland occur, little can be done for their removal. Cicuta may be used for some time: when it arises from a venereal complaint, mercury may have some effect. A removal of it by the knife seems impracticable.

VAR. D. UTERI.

Syn. CANCER OF THE UTERUS.

Q. 201. *How is a Scirrhus of the Uterus to be treated?*

A. When Scirrhus of the Uterus occurs little can be done for its removal. Cicuta, and the other remedies recommended for Scirrhus in general, may be used with advantage.

VAR.

VAR. E. LINGUÆ.

Q. 202. *How is a Cancer of the Tongue to be treated?*

A. When a small portion only of the Tongue is affected, it is to be removed. This being a formidable operation, is seldom attempted. When, however, recourse is had to it, the greatest attention is necessary in restraining the hemorrhagy, by taking astringent solutions into the mouth, and by using the other methods which are found most effectual in preventing hemorrhagy.

VAR. F. LABII INFERIORIS.

Q. 203. *How is a Scirrhus-Cancer of the Lower Lip to be treated?*

A. By removing the diseased portion by excision, when it happens to be of a small size. The surgeon is to endeavour to cut it out in a triangular form, having the inferior

ferior angle, if possible, in the middle of the chin. As soon as the diseased portion is, in this way, removed, the edges of the wound are to be brought into contact, and kept in this state, by the twisted suture, until a cure is completed.

VAR. G. BULBI OCULI*.

Q. 204. *How is a Scirrhus-Cancer of the Eye-Ball to be treated?*

A. The extirpation of the diseased eye-ball seems to be the only remedy that can be depended on, particularly when it is performed early. The operation is executed, by laying the patient on a table, with his head a little raised with a pillow. When the ball is so much enlarged as to protrude, the surgeon may lay hold of it by his fingers, and he is to separate it from all the parts with which it is connected, taking care, at the same time, as much as

* Ophthalmia Cancrofa, *Sauvagesius*. Cancer Palpebrarum, *St. Ives*.

possible,

possible, to avoid touching the bones of the orbit, which are sometimes extremely thin. The eye being in this manner dissected out, the hemorrhage is to be suppressed by a slight degree of pressure with a sponge, having a piece of packthread fixed to it, to effect its removal. Should it happen to adhere very firmly to the orifices of the bleeding vessels, as soon as the wound heals up, the deformity may be in some measure obviated, by wearing artificial eyes made of silver, gold, or glass; but the irritation, arising from such, is in danger of reproducing the disease. It is chiefly in cases of staphyloma, where part of the humours of the eye have been evacuated, that such can be used with any propriety.

SCROPHULA*.

Syn. KING'S EVIL.

Q. 205. *What are the Diagnostic Symptoms of Scrophula?*

A. There is generally a swelling of the

* Scrophula, Sauvagesius, Vogelius, Sagarus, Cullenus.

conglobate glands of the neck, an enlarged upper lip, fine smooth skin, blue eyes, and florid countenance. The swelling of the glands is, for the most part, of an indolent and indurated nature, and is generally hereditary.

Q. 206. Whether should Scrophulous Tumours be brought to suppuration, or their resolution attempted?

A. As the discharge from Scrophulous Tumours cannot, by any means as yet known, be converted into proper pus, all poultices, and warm topical applications, favouring suppuration, are to be avoided; and the use of sea bathing, and change of climate, are to be recommended. Mercury may have some effect in curing the disease.

Q. 207. When Matter has once formed in Scrophulous Tumours, are they to be opened, or allowed to burst of themselves?

A. As scrophulous sores are very difficult of healing, scrophulous tumours should

never be opened, except when they are situated upon any of the large joints; because matter being allowed to remain within the capsular ligament of a joint, might, at last, soften the bone. When scrophulous tumours are situated on the thorax, and when matter has formed within them, they are also to be opened, to prevent the matter from getting access inwards among the lungs.

VAR. SCROPHULA ARTICULARIS *.

Syn. WHITE SWELLING OF THE JOINT.

Q. 208. *How is a Swelling of the Joint from Scrophula distinguished from that produced by Rheumatism.*

A. In the scrophulous white swelling of the joint, the pain is more acute, and more confined to one place, which is generally the middle of the joint. Very little swelling is observed at first; but, in course of time, the bones, forming the joint, come to be enlarged, and varicose veins appear on the

* Fungus Articulorum, *Heisterus*. Hydarthus Synoviales, *Simpson*. Anchylosis, *Linnaeus*.

surface. After these symptoms have continued for some time, sinuses begin to form, and a foetid matter begins to be discharged, upon the bones growing carious. At the same time a diarrhea takes place. At last hectic fever, and night sweats come on, so as to exhaust the patient altogether, in a short time.

Q. 209. How is White Swelling, from Scrophula, to be treated?

A. No remedy has been yet discovered capable of curing Scrophula; so that very little can be done for the cure of scrophulous swellings of the joints. Frictions with mercury upon the part are recommended. The application of emollient poultices, to the joint, become in certain cases necessary. After every attempt has been persevered in for some time, and the disease still advances, the limb must be removed to preserve life.

BRONCHOCELE *.

Q. 210. *What is a Bronchocele?*

A. Any tumour on the anterior part of the neck, whether aneurismal (Q. 111.) or of the meliceris kind, has been termed bronchocele. The theroid gland is sometimes enlarged from scrophula, so as to obstruct respiration. In this state the disease has got the denomination of *Gouetre*, and is supposed to arise sometimes from the water of snow †.

Q. 211. *How is Bronchocele to be treated?*

A. It has been generally advised to remove the theroid gland by an operation. No attempt of this kind ought ever to be made, unless the case is such as to endanger the patient's life. In some cases, when it acquires a very large size, it is to be removed with the greatest caution, as it is plentifully supplied with very considerable

* Bronchocele, *Sauvagesius*, *Vogelius*, *Trochélophyma*, *Sagarus*.

† Bronchocele Botium, *Boncallus*.

arteries, and is contiguous to very considerable blood-vessels and nerves. In the early stages of the affection, friction with mercury may have some effect. The introduction of a seton, with a blunt probe, through the tumour, to avoid wounding any of the considerable blood-vessels, may be attended also with advantage. From the discharge occasioned by it, the tumour may probably shrink.

GEN. XII. CARNEA.

POLYPUS*.

Q. 212. *What is a Polypus?*

A. It is a fleshy, indolent, somewhat round, tumour, adhering, by one or more roots, to some of the internal cavities of the body; as in the pharynx, nose, œsophagus, meatus auditorius, and in the vagina. For the most part, however, they appear to originate from the pharynx, and

* Polypus, *Vogelius*.

inferior part of the ossa spongiosa; and sometimes they occupy both nostrils.

Q. 213. *What are the Causes of Polypi?*

A. Venereal affections and scrophula are said to be a predisposing cause of polypi. For the most part they arise from some local injury. Whatever tends to produce an inflamed state of the nose, as catarrh, hastens their growth. A caries of some of the bones of the nose, is found to be the occasion of the hardest kind of polypi.

Q. 214. *What Prognosis can be given of Polypi in general?*

A. The chief danger arises, in Polypi, from their impeding deglutition and respiration, when they happen to fall back into the fauces; and from their size, which is sometimes so considerable, as to separate asunder the bones of the nose. There is also a chance of their turning out cancerous. With respect to the cure of polypi, it is always more difficult, in proportion to the firmness of the polypi. The softer the polypi are the

easier and with the less danger they are to be removed.

Q. 215. *How are Polypi to be treated?*

A. As long as polypi, of any kind, remain stationary, they are not to be touched. But when they continue to grow, astringent applications and scarifications are to be used. When this fails, to prevent their growth, they are to be removed altogether.

Q. 216. *What is the best method of removing Polypi from the Nose and Fauces?*

A. In removing tumours in other parts of the body, excision with the knife is generally preferred; and should be also employed in removing polypi, were it practicable; but the situation of polypi is often such, as to render the application of the knife inadmissible; recourse is therefore had to the ligature, which answers equally well. The root of the polypus is to be surrounded by the ligature, which ought to be a piece of wire or catgut. This ligature

ture is to be introduced into the pharynx, through the nostril, by means of a double tube, having the ligature passed previously through it. The wire is to be gradually pushed into the pharynx, through the tube, until it appear in the mouth. The surgeon is, then, to lay hold of the ligature, in the mouth, and open the doublings of the wire, which he now passes over the polypus. The wire is then to be pulled tight through the tubes, so as to obstruct the circulation in the tumour, which will in a day or two mortify and fall off. In this manner, ligatures may be applied to tumours in the back part of the nose and throat. In order to apply the ligature, directed to the root of the tumour, in the anterior part of the nose, a slit probe has been used, to push up the ligature to the root of the polypus, which is to be first surrounded by the doubling of the ligature. The extraction of polypi by the forceps should never be attempted, when it can be done with the ligature; as the forceps tears away

away the membranes, that cover the bones. Hence troublesome exfoliations take place, and the operation itself is attended with the most excruciating pains. Removing of polypi by caustic is liable to many objections. They are in danger of injuring materially the contiguous sound parts of the throat. Caustic has been recommended to destroy the roots of polypi. It is, however, never to be used, except when the base of the polypi is visible to the eye. When at any time caustic can be used with propriety, it should be conducted into the throat by a tube contrived for the purpose.

POLYPUS NASI*.

Q. 217. *How are Polypi of the Nose distinguished and treated?*

A. The patient feels a fulness in his nose, and sometimes a partial loss of smell. A tumour is soon perceived in the nostrils. It is said, that, in damp weather, their size

* Sarcoma Narium, *Sauvagesius*.

is increased. They are of various degrees of hardness, the hardest being generally the most painful. Their surface is sometimes ulcerated, and a fœtid matter comes at last to be discharged from them. The method of cure, in such a case, is exactly the same as recommended (Q. 216.) for polypi in general.

VAR. B. POLYPUS UTERI*.

Syn. POLYPUS OF THE UTERUS.

Q. 218. *How is a Polypus of the Uterus to be treated?*

A. A prolapsus of the uterus being mistaken for a polypus, may be attended with dangerous consequences. Polypus of the uterus may be, however, distinguished by careful inspection and examination, for it is generally found to be attached to the os internum by one stalk, and it is sometimes found to acquire a considerable size. Its growth is gradual, and when it is of an in-

* Cercosis Aetii; Sarcoma Cercosis, Sauvagesius.

veterate nature it is apt to degenerate into a cancer. The method of cure is exactly the same as recommended for polypi in general (Q. 216).

VAR. C. POLYPUS MEATI AUDITORII.

Q. 219. *How are Polypi of the Ear to be treated?*

A. Polypi of the ear sometimes acquire so great a size as to impede the hearing. In such cases they are to be removed by the ligature alone. No escharotic substance can be used with propriety for their removal, as it is always in danger of hurting the tympanum.

SARCOMA *.

Q. 220. *What is a Sarcoma?*

A. It is a fleshy excrescence, growing on any part of the body, of a soft nature, and

* Sarcoma, Sauvagesius, Cullenus, Sagarus.

not attended with much pain. It differs from polypi, in its not forming within mucous cavities; in being, for the most part, on the surface of the body, and being generally the consequence of inflammation. It differs from scirrhus, in not being hard, and not affecting the glands.

VAR. A. HORDEOLUM*.

Q. 221. *How are Indolent Tumours of the Eye-lids to be treated?*

A. When such tumours are the consequence of inflammation, their suppuration is to be first attempted, by the methods already laid down (Q. 10.), and as soon as pus is formed, it is to be discharged by an opening. But when such tumours cannot be brought to suppuration, recourse must be had to cut them off, by ligature, or by excision with the knife.

* Hordeolum, *Sauvagesius*, *Cullenus*, *Sagarus*, *Linnaeus*.

VAR. B. PTERYGIUM*.

Syn. FLESHY EXCRESCENCES OF THE
CORNEA.

Q. 222. *How are fleshy Excrescences of the Cornea to be treated?*

A. They are to be removed by escharotic substances, such as alum, blue vitriol, and the like, when these fail, recourse is generally had to remove them by the knife.

VAR. C. EPULIS*.

Syn. FLESHY EXCRESCENCES ON THE
TEETH AND GUMS.

Q. 223. *What are the Causes of Fleshy Excrescences on the Gums and Teeth, and how treated?*

A. A carious tooth, or a carious portion of the alveotary process; fungous ex-

* Pterygium, Sauvagesius, Vogelius, et Linnæus, Pannus Ungula, Sagarus.

† Epulis, Vogelius, Sagarus.

crefcences which fometimes impede maf-
tication. Thefe excrcfcences are always
red. Sometimes they are of a watery con-
fiftence, but, in general, they are foft, and
adhere to the gums only by a fmall neck.
They are to be removed by a ligature
Q. 216.

VAR. D. SARCOMA TONSILLARIS.

Syn. ENLARGEMENT OF THE TONSILS.

Q. 224. *What are the Caufes of Enlarge-
ment of the Tonfils?*

A. Cold, producing inflammation, may
be reckoned the principal caufe, repeated
returns of which adds confiderably to their
bulk, until at laft they acquire fuch a fize
as to impede deglutition and refpiration.
They feldom or never degenerate into
cancer, or return after they are once ex-
tirpated.

Q. 225. *How is an Enlargement of the
Tonfils to be treated?*

A. In cafes of enlargement from catarrh,
fomentations

fomentations and scarifying the throat may be of service. After these methods prove unsuccessful, and they continue to increase in size, so as to become at last very troublesome, they are to be removed by ligature, in the same way as recommended for polypi (Q. 216). Caustic applications are here equally inadmissible, as in polypi, and the excision by the knife is liable to produce profuse hemorrhagy. The ligature is, therefore, to be introduced through the nose, by means of a double canula. If both tonsils are enlarged, the inflammation, produced by the removal of the one, should be allowed to subside, before any attempt be made to remove the other.

VAR. E. FUNGUS*.

Syn. PROUD FLESH.

Q. 226. *What is a Fungus, and how is it to be removed?*

A. It is a fleshy excrescence, of a soft

* Fungus, *Sagarus*.

spongy

spongy nature, rising out of ill-conditioned ulcers, or from old wounds, above the level of the skin, and preventing their healing.

Fungi are for the most part removed, by the application of escharotics; principally such as lunar caustic, alum, blue vitriol, or the like. In some cases they acquire such a size as to require excision by the knife.

GEN. XIII. CALLOSA.

CONDYLOMA *.

Q. 227. *What is a Condyloma?*

A. It is an excrescence, produced by doublings of the skin, generally situated about the anus, of a firmer consistence than flesh, and softer than bone. There are several varieties of this affection as Var. A. FICUS, Var. B. THYMUS; all of which are occasioned by pressure.

Q. 228. *How are Condylomatous Tumours about the Anus to be removed?*

A. In the same manner as recommended

* Condyloma, Sauvagesius, Linnæus, Vogelius.

for polypi, by lunar caustic, by the ligature, or by the knife, and by avoiding the occasional cause.

CLAVUS *.

Syn. CORNS.

Q. 229. *How are Corns to be treated?*

A. As they arise from the same causes as those of condyloma (Q. 227.), the mode of treatment must be exactly the same; by avoiding the occasional cause; by wearing wide shoes, and paring off the inorganic matter, after it has been for some time previously soaked in warm water, and covering them afterwards with some gummy adhesive plaister, to defend them from the cold air. The ligature, however, cannot be used with the same propriety.

VERRUCCA *.

Syn. WARTS.

Q. 230. *How are Warts to be treated?*

A. When they have narrow roots, liga-

* Clavus, Linnæus, Vogelius, Cullenus, Sagarusque.

† Verrucca, Sauvagesius, Vogelius, Linnæus, Cullenusque.

tures may be used; but when, on the contrary, they have broad bases, escharotic substances may be used for their removal, such as lunar caustic, or a strong solution of corrosive sublimate. In the removal of warts, it is, however, particularly to be observed, that, unless the whole of a wart be completely removed, a considerable degree of inflammation is the consequence. When matter begins to form on the surface of warts, a strong solution of saccharum saturni is recommended; but when there is reason to suspect that they are of a cancerous nature, a solution of arsenic applied to them, is, in such cases attended with good effects.

GEN. XIV. OSSEA.

EXOSTOSIS*.

Q. 231. *What is an Exostosis?*

A. It is a tumefaction of a bone, occa-

* Exostoses, *Vogelius, Sagarusque, Sauvagesius, Cullenus.*
Hyperostosis, *Ludwig.*

sioned by too great a quantity of callus, occurring in bones previously fractured or wounded, or owing to an erosion occasioned by ulcers.

Q. 232. *How is Exostosis to be treated?*

A. No medicine has been as yet discovered capable of removing the affection. Recourse is therefore generally had to a surgical operation, particularly when the affection becomes painful and inconvenient. When a portion of one side of the bone is only affected, it may be removed by the trepan. But when the exostosis is found to surround the whole of the bone, that portion of the bone forming the exostosis, must be entirely removed, and the leg is to be placed in a proper posture, and nature will soon make up the deficiency.

NODUS.

NODUS*.

Q. 233. *What is a Nodus?*

Q. It is a swelling of a bone similar to exostoses (Q. 231.) occasioned by lues venerea, which is sometimes more rapid in its growth, than exostoses from fracture (Q. 231.). It is sometimes so much enlarged, as to burst the integuments, when an acrid discharge ensues.

Q. 234. *How is a Nodus to be treated?*

A. The patient is to be subjected to a proper course of mercury, and when the periosteum is inflamed by the tension, occasioned by the rapid growth of the bone, the application of leeches becomes necessary.

SPINA VENTOSA*.

Q. 235. *What is a Spina Ventosa?*

A. It is a swelling similar to exostosis,

* Exostoses Siphilitica, *Petite.* Nodus, *Villars.*

* Sideratio, *Hippocrates, Galen, Celsus.* Pædarthrocace, *Freind.* Exostoses Scophulosa, *Petite.*

(Q. 231.) arising from scrophula. This affection differs from other swellings of bone, by its affecting the extremities of the large bones at the joints, which become carious, and lay the foundation of white swellings (Q. 208.).

Q. 236. *How is a Spina Ventosa to be treated?*

A. By applying all the remedies recommended for scrophula (Q. 206, 207.). When white swellings occur, they are to be treated as already recommended (Q. 209.).

SPINICULÆ GENU ARTICULI.

Syn. CONCRETIONS WITHIN THE KNEE JOINT.

Q. 237. *How are Præternatural Bony Concretions of the Knee Joint removed?*

A. When such substances are found to adhere firmly to the capsular ligament of the joint, amputation of the joint has been
generally

generally recommended. When they are loose, they may be removed by making an incision, with a scalpel, on the body of the substances, intended to be removed. As soon as this is effected, and the spiniculæ are removed, the skin is to be applied close together, to prevent, as much as possible, the admission of the external air into the joint.

CLASS II.

HYOCENOSES.

ORD. I. HEMORRHAGIA*.

GEN. XV. TRAUMATICA.

PARTITA*.

Q. 238. *How is Hemorrhagy, arising from a complete division of Vessels, in performing a Chirurgical Operation, obviated?*

A. When the Hemorrhagy occurs in any of the extremities, it can be successfully prevented by the application of the tourniquet, which consists of a strap tightened to such a degree, by a screw, as to impede the circulation in the parts below where it is to be applied. This strap will, in every case of

* Sanguifluxus, Sauvagesius, Sagarus. Profusio, Linneus, Cullenus.

hemorrhagy

hemorrhagy from the extremities, prevent it, until the bleeding arteries are secured, which may be laid hold of singly by a hook, termed a *tenaculum*, or by a small forceps, and may be drawn a little outwards, to admit of their being furrounded by a ligature, made of silk thread waxed. This ligature is now to be tightened, to such a degree, as entirely to obliterate the cavity of the artery at its extremity. But, when the bleeding vessels cannot be laid hold of singly, a portion of the furrounding soft parts is to be included in the ligature; by furrounding the artery, by a curved needle, and performing it with two semi-circles, the artery can be completely furrounded. When there is an oozing of blood, from a wound of a considerable surface, and when it is found difficult to prevent it, either by the use of the needle, or by ligature, pressure on the surface of the fore has some effect. Viscid and mucilaginous applications are recommended to be laid on the surface of the fore, and astringents in some cases have been used with good effects; particularly

larly when the hemorrhagy occurs in the fauces, where a ligature could not be applied. Spirit of wine, taken into the mouth, in such cases, has been also found to be of service. In some cases the application of the potential cautery becomes necessary, to obviate hemorrhagy.

GEN. XVI. SYMPTOMATICA.

EPISTAXIS*.

Syn. BLEEDING AT THE NOSE.

Q. 239. *How is a case of Epistaxis to be treated?*

A. Bleeding at the nose being generally a symptomatic affection, arising from plethora, such remedies, as tend to obviate plethora most powerfully, are to be used. Topical applications are to be used for the time, particularly cold, so as to produce a constriction in the orifices of the ruptured vessels lining the membranes of the nose.

* Epistaxis, *Vogelius et Cullenus.*

When

When this fails to stop the hemorrhagy, recourse must be had to compression, which is sometimes very difficult, when the arteries lie deep. The introduction of dossels of lint into the nostrils, sometimes proves effectual; and the gut of an animal filled with cold water, by adapting itself to the convolutions of the ossa spongiosa, may have some effect. When all these fail to stop the hemorrhagy, a piece of catgut is to be introduced, through the nose into the pharynx, and taken out at the mouth. A piece of sponge is to be then fixed to the end taken out of the mouth, of such a size as to stop the posterior part of the nostril. The piece of wire is now to be drawn back again through the nostril, until the sponge press against the posterior part of the nares. In this manner another piece of sponge may be applied to the other nostril, when the hemorrhagy occurs from both. Two compresses are then to be applied on the anterior part of the nostrils; and they are to be secured by the ligatures fixed to the sponges. The blood in this manner, find-
ing

ing no way to escape, will soon coagulate and prevent further hemorrhagy by its pressure. Whatever tends to increase the action of the vascular system is to be in the mean time avoided.

HÆMOPTYSIS*.

SPITTING OF BLOOD.

Q. 240. *How is Hæmoptysis to be treated?*

A. It being for the most part a symptomatic affection, and sometimes arising from the same causes as those of Epistaxis, the method of cure depends upon a removal of the primary affection. When hemorrhagy occurs, from the action of the vascular system being very much increased, a strict antiphlogistic regimen is to be used, and a liberal use of acids.

* Hæmoptysis, *Sauvagesius, Linnæus, Vogelius, Sagarus, Cullenus.*

HÆMATEMASIS *.

Syn. VOMITING OF BLOOD.

Q. 241. *How is Hæmatemasis distinguished from Hæmoptysis?*

A. In some cases it is difficult to determine, whether the cough, attending Hæmoptysis, may not frequently produce Hæmatemasis; or whether the vomiting attending Hæmatemasis may not bring on Hæmoptysis. Sometimes blood discharged from an artery, pretty far back in the nose, may be mistaken for an Hæmoptysis. The quantity of blood discharged by Hæmatemasis is seldom above two ounces, and is generally of a grumous colour, from its lying for some time in the stomach. Whereas, in Hæmoptysis, considerable quantities are often discharged, to the amount of a pound at a time, and is of a florid frothy colour.

Hæmatemasis, Sagarus, Linnæus, Vogelius, Sauvagesius.

Q. 442.

Q. 242: *How is a Hæmatemasis to be treated?*

A. As it may depend upon the same causes, as those of Hæmoptysis, the method of cure must be the same. A liberal use of acids, and an antiphlogistic regimen, is all that can be prescribed.

HÆMATURIA*.

Q. 243. *How is Hæmaturia to be treated?*

A. Bloody urine is generally symptomatic, and considered merely as a hæmorrhagy, is seldom dangerous. It is to be only cured by a removal of the primary affection. All that can be done for the time is to endeavour to alleviate the symptoms by an antiphlogistic regimen.

* Hæmaturia, Sauvagesius, Vogelius, Linnæus. Cystirrhagia Styomatosis, Vogelius.

ORD. II. ULCUS*.

Syn. SORE ULCER.

GEN. XVII. PURIFLUXUS.

SIMPLEX.

Syn. SIMPLE ULCER.

Q. 244. *What is a Simple Ulcer?*

A. It is a discharge of mild pus, from the surface of a wound, not of long standing; or from an abscess, situated on the surface of the body, and having new granulations at its bottom.

Q. 245. *Can the cure of every Simple Ulcer be, at all times, with propriety, attempted?*

A. When the discharge from ulcers has

* Ulcus, Sauvagesius, Cullenus, Linnæus, Platner, De Villars.

been in any considerable quantity, and has subsided for some time, they are never to be healed up all at once, as this discharge, being suddenly stopped, might materially hurt the constitution. But, when ulcers are situated upon particular parts, and render these inconvenient for the purposes of life, they are to be immediately dried up. At the same time an issue is to be inserted, in some more convenient part. The discharge occasioned by it, will be a substitute for the ulcer. The issue may be allowed, in some cases, gradually to diminish, until at last it may be dried altogether, without any inconvenience to the system.

Q. 246. In the formation of Issues, what are the principal things to be attended to?

A. They should never be formed over a tendon, bone, belly of a muscle, nor contiguous to any considerable blood-vessel. The best places, therefore, for forming issues, are in the interstices of the muscles; as about the nuche of the neck, the middle
of

of the humerus, or thigh, or between two of the ribs.

Q. 247. *How are Issues formed?*

A. Either by making an incision with a lancet, or caustic, large enough to admit of a pea being introduced into it; or when a greater discharge of matter is wished for, to pass a seton or chord by a needle, through the part; which should be first marked with ink, at the place the needle is wished to come out at.

Q. 248. *What Prognosis can be given of Ulcer in general?*

A. The Prognosis must depend upon the nature of the cause, whether it has been more or less violent; or, if any predisposition has given rise to them. Their situation is also of great consequence, to direct the prognosis. When ulcers occur on tendons or ligaments, they are more difficult to heal. The danger attending ulcers may arise from the chance of their penetrating into any of the cavities of the body, not accustomed

accustomed to the admission of the external air; and also, from their being contiguous to some great blood-vessels, the matter discharged by them may become so acrid, as to corrode their coats, and so form aneurisms (Q. 111.).

Q. 249. *How is a Simple Ulcer to be treated?*

A. Whatever prevents the formation of new granulations in the bottom of the sore, is to be avoided, such as chemical or mechanical irritations, occasioned by improper dressings. Pain is also always prejudicial to the healing of ulcers. It should be therefore particularly guarded against. Dressings too often applied prove also an irritation to the sore. The dressings should be of the mildest nature, and not applied oftener than once in twenty-four hours, in this climate. In order to preserve the ulcer, in a proper purulent state, a certain degree of heat is always necessary, by means of warm poultices to the extremities, on account of their being at a greater distance from the heart.

Poultices, however, ought not to be continued too long, as they render the part flabby, and so prevent the healing. Compression on the contiguous sound parts is also found to be of considerable service in the cure of ulcers. Granulations being formed at last in the bottom of the wound, and the deficiency supplied completely, a *cicatrix* will soon take place. But when the granulations begin to extend beyond the surface of the sore, they are to be obviated by caustic, dry charpee, and a tight bandage; applying at the same time some astringent solution.

Q. 250. *When the Discharge from a simple Ulcer becomes Vitiated, how is it to be treated?*

A. By endeavouring as much as possible to convert it into the form of a simple ulcer, by a diligent application of heat to the part, and a liberal use of opium to remove the pain. When the body is exhausted, a nourishing diet, together with bark and wine, is to be recommended. But when, on the contrary, the body is in a plethoric

plethoric state, the antiphlogistic regimen is adviseable. When once a plentiful sup-
puration is formed, the sore is to be treated
as already recommended (Q. 249).

ÆGILOPS *.

Syn. ULCERS OF THE EYE AND ITS COATS.

Q. 251. *From whence arises the danger of
Ulcers of the Eye?*

A. The danger chiefly arises from their
situation. In some parts of the eye, the
cicatrix left by them may destroy vision
altogether. A partial debility is also left
when the cicatrices of such ulcers are formed,
so as to allow the humours of the eye at
last to escape. Funguous excrescences
often arise. When such ulcers are formed,
they are to be removed, as already recom-
mended.

Q. 252. *What are the Causes of Ulcers of
the Eyes, and how to be treated?*

A. They are generally the consequence

* Ægilops, Vogelius.

of inflammation running into suppuration. They may arise from wounds, burns, and a variety of other causes.

When such ulcers arise from inflammation, and it has not as yet fully subsided, the antiphlogistic regimen is to be used, as recommended for ophthalmia (Q. 31). When such ulcers are hollow, and have foul edges, a little corrosive sublimate, white vitriol, or weak solution of saccharum saturni will be found of some service,

ULCUSCULÆ ORIS.

Q. 253. *How are Ulcers of the Mouth to be treated?*

A. When ulceration of the mouth arises from a general affection, of the system, as from lues venerea *, or from fevers †, the affection occasioning such is first to be removed, before a cure can be expected. When ulceration of the mouth arises from

* Ulcuscula Venerea Oris, *Astruc*. Aphtha Syphilitica, *Sauvagesius*.

† Aphtha febrilis, *Sauvagesius*. Aphtha adultis, *Lennert*.

a portion of a ragged tooth, the ragged portion is to be filed off, and some astringent solution taken, from time to time, into the mouth.

OTORRHEA *.

Syn. RUNNING FROM THE EAR.

Q. 254. *How is Ulceration of the Ear to be treated?*

A. Any discharge from an ulcer in the ear should be dried up, as soon as possible, because a continuation of it might materially injure the tympanum, and particularly the bones of the ear. To wash away the matter of ulcers from the cavity of the ear, warm water has been recommended. To wash out matter formed within the cavity of the ear, an astringent solution of oak bark, or saccharum saturni, is often attended with the best effects.

* Otorrhea, *Linnaeus, Sagarus.*

SINUS.

Syn. SINOUS ULCER.

Q. 255. *What is a Sinous Ulcer?*

A. It is an ulcer with a narrow orifice, running in the interstices of the muscles, or in the cellular substance, occasioned by the matter of abscesses, or ulcers, not finding proper vent, insinuating itself into the cellular substance.

Q. 256. *What Prognosis can be given of Sinus in general?*

A. It must depend upon the habit of body of the patient. When sinuses are occasioned by some fault of the constitution, when they are of long standing, and when they penetrate into any of the joints, the prognosis must be very doubtful.

Q. 257. *How is a Sinous Ulcer to be cured?*

A. The principal thing in view in the cure of a sinus, is to produce a total annihilation

hilation of the cavity, from whence the matter is discharged. This is effected by exciting a certain degree of inflammation, so as to occasion a concretion of the sides of the sinus. For this purpose acrid substances have been recommended, to be injected into sinuses. But a seton introduced into the opening of the sinus, and carried through it, to its other extremity, as recommended for abscess (Q. 49.) answers better. As soon as a sufficient degree of inflammation is produced by it, it is to be removed. Making a free incision with a scalpel the whole length of the sinus, answers equally well, when the situation of it is such as to admit of this.

FISTULA *.

Syn. A CALLOUS NARROW SORE.

Q. 258. *What is a Fistula?*

A. It is a sinus (Q. 255.) with callous edges, deeply seated, and discharging pus

* *Fistula, Sauvagesius, Linnæus, Vogelius, Cullenus.*

by a small opening, for the most part occurring in the anus, neighbourhood of the rectum, perineum, and urethra.

VAR. A. FISTULÆ IN ANO.

Q. 259. *What are the Causes of Fistulæ in Ano?*

A. They may be occasioned by abscesses, or collections of matter about the anus, not finding an outlet, spreading among the interstices of the muscles, and between them and the integuments. Contusions of the buttocks may produce inflammation of them, and from these collections of matter a caries of the os sacrum or coccygis, inflammation produced by piles, or condylomatous tumours about the anus, may be also causes of fistulæ in ano.

Q. 260. *How do Fistulæ in Ano terminate if improperly treated?*

A. At last not only the parts about the perineum and rectum become diseased, but sometimes the matter corrodes the bladder
and

and makes a hole in it. In this manner a communication has been often found between the rectum and bladder. The os sacrum and coccygis become at last carious and death puts an end to the sufferings of the patient.

Q. 261. *How are Fistulæ in Ano to be treated?*

A. Whenever inflammatory tumours are observed about the anus, as soon as their resolution is found impossible, every method already recommended for promoting pus (Q. 10.), is to be attempted; and when matter is once fully formed, it is immediately to be evacuated. But when, from some improper treatment, this has been neglected, and painful callosities have taken place about the edges of the sac, formed by the tumour being allowed to burst of itself, the affection is to be treated exactly in the same manner as recommended for sinus (Q. 257). There is no occasion to remove the callous edges, as has been generally recommended. Making an incision

incision only by a probe-pointed bistay into the fistula, answers much better.

Q. 262. How is the Operation for Fistulæ in Ano executed?

A. The patient being placed in a proper posture, the finger of the surgeon is to be rubbed over with oil, and introduced into the rectum; the point of a probe-pointed bistory is to be inserted into the fistula, and pushed against the finger in the rectum, if a communication takes place between the finger and the rectum. When this, however, is not the case, and the fistula runs only in the direction of the rectum, a sharp pointed bistory is to be used. A piece of cork, similar to the finger, is to be introduced into the rectum, to receive the point of the bistory, after it has penetrated into the rectum. It is now to be taken out at the anus, by withdrawing the cork. The surgeon may finish the operation by one stroke of the knife. A degree of inflammation being in this way produced, the callous edges are destroyed, by the formation of pus on their surface; and by gentle pressure,

pressure, a cure is then generally obtained. When fistulæ are at a distance from the rectum, they are to be opened by a directory and a scalpel.

VAR. A. FISTULA IN PERINEO.

Q. 263. *What are the causes of Fistulæ in Perineo?*

A. Fistula in the perineo may arise from wounds of the bladder, and of the urethra, from external violence; from a laceration of parts, when performing the operation of lithotomy; from incisions into the urethra, for the extraction of calculi happening to stop there; by sinuses producing matter capable of corroding the membranous part of the urethra; from suppuration taking place in the perineum, being the consequence of inflammation, from the urine passing through an opening of the urethra into the perineum, scrotum, or other neighbouring part, and rendering the edges of the sore callous. Fistulæ in

rineo are for the most part occasioned by venereal complaints.

Q. 264. *How are Fistulæ in Perineo to be treated?*

A. When they are the consequence of other affections of the system, before a cure is to be attempted, a removal of the primary affection is necessary. When the complaint is only of a local nature, a simple incision into the sinus is all that is necessary, to discover the wound in the urethra, into which a catheter is to be previously introduced. A small portion of the fistulous edges of the fore may be removed, and the edges are to be placed as nearly in contact as possible. When a communication takes place between the body of the bladder and the perineum, the sinus is to be laid open to its bottom, and the callous edges are to be removed as far as it can be done with safety, and the wound is to be allowed to heal from its bottom, as already recommended.

VAR. C. FISTULA LACHRYMALIS.

Q. 265. *What is a Fistula Lachrymalis?*

A. A dilatation of the lachrymal sac from obstruction of its duct, sometimes takes place, so as to burst the sac at last; when an opening is formed, in the most prominent part of the tumour, through which the tears and matter it contained are discharged: but upon this taking place, it closes again, until another collection forms, when it bursts again; and so on repeatedly, until at last an opening remains with callous edges; and when the complaint has subsisted for some time, the bones of the nose come to be affected, and the discharge becomes foetid.

Q. 266. *What are the Causes of Fistula Lachrymalis?*

A. The affection may arise from inflammation of the membrane of the duct, from catarrh, measles, cold, venereal affections, scrophula, wounds, and tumours, producing an obstruction to the passage of the tears into the nose.

Q. 267.

Q. 267 *What Prognosis can be given of Fistula Lachrymalis?*

A. When the disease is the effect of scrophula, or of venereal affections, a cure can never be expected, until the primary affection is removed. But, when the affection arises from inflammation, in consequence of cold, or of the measles, the prognosis may be more favourable. When the obstruction is owing to the pressure of tumours, in the neighbourhood of the duct, a cure is easily effected, provided there be a possibility of removing such tumours with propriety.

Q. 268. *How is a Fistula Lachrymalis to be treated?*

A. The mode of treatment must vary according to the different stages of the disease. When inflammation of the membrane of the duct is the cause of the obstruction, the antiphlogistic regimen becomes exceedingly necessary, to prevent adhesion of the sides of the duct. When the obstruction is seated in the puncta lachrymalia, or in the duct by the visciditv of the matter,

matter, by remota, a fine probe may be passed through them, to remove the obstruction; or a curved probe, introduced into the nose, may remove any obstruction of this kind from the nasal duct. Pressure upon the duct by a column of mercury, raised in a tube, may have some effect in removing the obstruction. When fistulæ lachrymales arise from lues venerea, or scrophula, no cure can be expected, until the primary affection be removed. Pressure upon the sac has been recommended, to such as will not submit to a removal of the complaint by an operation. In this way the tears run over the cheek during life, when an accretion of the sides of the sac has taken place. The only remedy left, is, to make an artificial passage for the tears, by a surgical operation.

Q. 269. *How is the Operation for Fistula Lachrymalis executed?*

A. After making an opening in the most depending part of the tumour, by a lancet, and discharging the sac of its contents, if it is found impossible, the natural passage by
P a probe

a probe passed forward in the natural direction, and with moderate force, recourse is to be had to drill cautiously an artificial opening through the os unguis, by a trocar, or any other sharp-pointed instrument. When the instrument has penetrated a sufficient depth (which is easily known, by the want of resistance), and the blood is discharged by the nose, a proper attention to the direction of the instrument, in making the perforation, is always necessary. It is to be made in an oblique direction, downwards from the inferior part of the sac. As soon as the perforator is removed, a silver tube is to be introduced into the opening, where it is allowed to remain, until the edges of the wound become callous. As soon as this is effected, the tube is withdrawn, and the external wound heals readily.

GEN. XVIII. VISCIDA.

SCROPHULOSA*.

Q. 270. *How are Scrophulous Ulcers to be treated?*

A. To effect a cure, a removal of the general affections of the system becomes requisite. Solution of saccharum saturni may be applied to the part, and sea-bathing may be used with some effect. No attempt ought to be made to convert the discharge of scrophulous ulcers into proper pus, as the application of warm poultices seems to do harm, and as there is no possibility of changing the curdly matter discharged by them into pus.

SYPHILITICA*.

Q. 271 *How are Venereal Ulcers of long standing distinguished?*

A. For the most part they can be distinguished from their situation; from their

* Elcosis Scrophulosa, *Sauvagesius*.

† Elcosis Syphylitica, *Sauvagesius*.

attacking the throat, palate, bones of the nose, and middle of the long bones of the extremities; and by their yielding a greenish tough sort of matter, different from mild pus.

Q. 272. *How is the Venereal Ulcer to be treated?*

A. When they are of a local nature, only in the form of what has been named chancre, burning them out with lunar caustic removes them effectually. But when venereal ulcers arise in consequence of the general affection of the system, a regular course of mercury is to be used, which seldom fails to effect a cure.

GEN. XIX. ICHORA.

CANCER*.

Q. 273. *How is a Cancer to be treated?*

A. Medicine has little effect in produc-

* Carcinoma, *Linnaeus, Sagarus, Vogelius,*

ing a cure. All that can be done, therefore, is, to palliate the disease, by using a mild and nourishing diet, with small doses of opium, wine, and bark. Also fine lint, and a sponge, may be applied to the fore, together with cataplasms of cicuta, and opium. Where the cancer is only local, it should be removed, if it can be done with propriety.

CARIES*.

Q. 274. *What is a Caries?*

A. It is a mortification of the bone, attended with a discharge of an ichorous nature, and which is always very foetid. Sometimes it arises from a denudation of the bone, by a separation of the periosteum. When this occurs, the bone, in the course of three or four days after the accident, acquires a yellowish colour, and afterwards a brown; in a short time the surface of the soft parts puts on a flabby and glazed

* Caries, Sauvagesius, Sagarus, Linnæus, Cullenus, Vogelius.

appearance ; granulations, during the whole course of the disease, advance very rapidly ; even before the exfoliation of the diseased portion of the bone takes place.

Q. 275. *What are the Causes of Caries?*

A. External injuries of any kind, or internal faults of the constitution, affecting the periosteum : The matter of ulcers improperly treated, corroding the periosteum : Inflammation of the periosteum itself, from whatever cause, and the improper application of acrid substances to the bone.

Q. 276. *What Prognosis should be given of Caries?*

A. The Prognosis must depend upon the situation of the part affected. The danger attending it, arises from its being situated near parts essentially necessary to life, and also from its affecting the joint. The bone becomes more difficult, where it is situated on the hardest parts of the bones, as it requires greater time to effect an exfoliation. The cure is also more difficult, when the caries is extensive ; when it is the effect of

con-

contusion, or of a fault of the general habit.

Q. 277. *How is Caries to be treated?*

A. Whenever either by the natural exertion, or by art, a separation, of the diseased portion of the bone from the sound, takes place, a cure is to be immediately attempted, in the same manner as recommended already (Q. 249.) for simple ulcer; more particularly if the affection be of a local nature: Only the contiguous soft parts are to be kept from healing, until this takes place. Several applications have been recommended, to promote a separation of the diseased portion of the bones, so as to hasten the cure, when the natural effect is found slow and insufficient. But the best method, as yet discovered, is, to make a number of small holes in the bone, by a perforator, so as to promote a certain degree of inflammation, which will effect a separation of the diseased portion. Decoctions of bark are to be, at the same time, applied to the sore.

VAR §. ODONTALGIA CARIOSA*.

Syn. TOOTH-ACH FROM CARIOUS
TEETH.

Q. 278. *How is Tooth-ach, arising from Carious Teeth, to be treated?*

A. When the caries has destroyed the substance of the tooth, and by exposure of the nerve to the cold air, violent degrees of *Tooth-ach* are produced, and if the caries be not owing to a constitutional cause, the tooth is to be removed; especially when the caries is only owing to some external injuries, and when one of the teeth only is affected. But when there is more than one tooth affected, and the caries is owing to some other disease of the system, removal of them is not adviseable. The admission of the air, by its having access to the nerves of the teeth, is to be obviated, by filling the cavity of the tooth with some metallic body. Some acrid substances may

* Odontalgia Cariosa, Fauchart.

be first thrown into the tooth, to destroy the irritability of the nerve altogether; such as opium, spirit of wine, camphor, and essential aromatic oils. But although this may, for some time, destroy the power of the nerve, yet, in a short time, it acquires its former sensibility. Some have recommended, therefore, to destroy the nerve altogether, by lunar caustic, or the actual cautery, by introducing a red hot wire into the cavity of the tooth. But there is a considerable degree of danger attending the former of these methods, and patients will not readily submit to the latter. The best method of destroying the nerve, is by extracting the tooth; and, as soon as the socket is cleared of the blood, if the tooth be not much spoiled, it is immediately to be replaced, and it becomes as useful as before. This method can be, with propriety, always attempted, when the canini or incisores are only affected. Tooth-ach may arise from other causes, besides carious teeth; as from inflammation. Tooth-ach

is also symptomatic of other affections, as of pregnancy *, and of hysteria †.

Q. 279. *How is the Operation for extraction of the Teeth executed?*

A. The teeth may be extracted in various directions; but it is evident from the structure of their fangs, and of the alveoli, that the more perpendicularly they are pulled, the less contusion and injury will be done to the jaw-bones, and the alveoli will be less hurt; a circumstance of the greatest importance in the extraction of teeth. But as no proper instrument has been as yet invented, capable of effecting this properly, a lateral direction is generally recommended, by an instrument in the form of a key, with a claw and fulcrum; which should be always covered with a piece of linen cloth. After dividing the soft parts of the gum from the tooth, the claw is to be fixed as far down, betwixt the tooth and gum, as

* Odontalgia Gravidarum, *Mauriceau*.

† Odontalgia Hysterica, *Sauvagesius*.

possible.

possible. Then the fulcrum is to be applied on the opposite side. The surgeon may now, with one turn of the handle of the instrument, pull the tooth out at once. But the turn should not be effected by a sudden jerk, but in the most cautious and slow manner. When it happens to be one of the great molares, whose roots diverge very much, and when they are firmly fixed, after only loosing it with the first pull, the claw of the instrument is to be applied to the other side of the tooth, and the turn given in a contrary direction to the first. After it is sufficiently loosed in this manner, it is to be laid hold of by a common teeth forceps, and extracted in the easiest manner. The first turn of the instrument may be either outwards or inwards, indiscriminately, as the roots of the molares diverge equally well on both sides except in the two last molares of the lower jaw, where the turn of the instrument should be always inwards, to prevent the laceration, which would be apt to ensue from the pressure of the fulcrum of the instrument against the sharp ridge formed by the bases of the coronoid

coronoid process of the lower jaw. Upon extraction of the tooth, any detached splinter occurring is to be immediately removed. Should any considerable hemorrhagy take place, the patient may take some cold water, vinegar, or spirit of wine, into his mouth; and dross of lint may be introduced into the socket. After all these fail, recourse must be had to the actual cautery. Stumps of the teeth may be removed by a small forceps or punch. When the tooth extracted is so much destroyed, that it cannot be replaced again (Q. 278.), another tooth, taken from a sound person, will be found to answer.

Q. 280. *In the transplanting of Teeth, what are the principal things to be attended to?*

A. To obviate deformity, as much as possible, the sockets must be whole, and free of disease. The operation of transplanting teeth can never be, therefore, with propriety attempted, in old age, or in childhood. The transplanted tooth ought to fit the socket exactly. For this purpose it
 1 may

may be filed down, if it happens to be too large, avoiding, however, the corona of the tooth as much as possible. The transplanted tooth ought also to be taken from a person of a sound constitution.

GEN. XX. SANIES.

SCORBUTUS*.

Q. 281. *How is the Scorbutic Ulcer distinguished?*

A. It gives out a thin fœtid sanies. The edges of the sore are of a livid colour. There arises from the bottom of the sore a brown fungus (Q. 226.), which is rapid in its growth, and, although removed by escharotics, grows still to the same size, before next dressing. Scorbutic ulcers, for the most part, occur in the cicatrices of old sores, and generally affect the gums.

* Ileos Hematites, Splen Magnus, *Hippocrates*. Scorbutus Gallorum, Sea Scurvy, *Lind.*

Q. 282.

Q. 282. *How is the Scorbatic Ulcer to be cured?*

A. By removing the general affection of the system; by antiseptics, such as wine, bark, both topically applied and taken into the system; vegetable diet, and a liberal use of acids and sugar.

O Z Œ N A *.

Q. 283. *What is an Ozæna?*

A. It is a discharge from the nose, generally of a thin acrid nature, similar to fanies, occasioned by external violence, exposure to cold, or by whatever produces a degree of inflammation, in the membrane lining the nostrils. Sometimes it arises from a venereal infection, when the discharge becomes so acrid as to corrode the bones of the nose, and occasion caries of them.

Q. 284. *How is Ozæna to be treated?*

A. When the discharge is merely local,

* Ozæna, *Vogelius*.

and not depending upon any constitutional affection, dossils of lint, dipped in astringent solutions, are chiefly to be used; such as decoctions of bark. But when the affection is owing to a venereal infection, mercury is chiefly to be depended upon; and should be applied in the form of liniment, to which some corrosive substances should be added, to prevent the formation of excrescences (Q. 217.). When a caries of the bones of the nose occurs, the cure is rendered very difficult.

ORD.

ORD. SECERNENDA.

GEN. XXI. SEUFLUXUS.

CORYZA*.

Q. 285. *What is a Coryza?*

A. It is a discharge, mostly of a serous fluid, from the nostrils, different from Ozæna, and generally accompanying catarrh †.

Q. 286. *How is Coryza to be treated?*

A. By removing the occasional cause as much as possible, if present, a cure is generally effected.

EPIPHORA‡.

Q. 286. *What is an Epiphora?*

A. It is an extraordinary discharge of

* Coryza, Cullenus, Vogelius, Linnæus, Sauvagesius, Sagarus, Hippocrates.

† Coryza Catarrhales, Sauvagesius.

‡ Epiphora, Sauvagesius, Sagarus, Cullenus, Vogelius, Linnæus. Delachrymalis, Plinius. Rheuma Ophthalmia, et Epiphora, Galen.

tears from the eyes, occasioned by some fault of the lachrymal ducts or glands, and is generally a symptom of ophthalmia.

Q. 287. *How is Epiphora to be treated?*

A. By removing ophthalmia, if present, (Q. 31.), and by obtaining a free passage for the tears into the nose (Q. 369.), by removing inflammation, or any other cause, occasioning obstruction to the passage of the tears into the nose.

ENEURESIS*.

Q. 288. *What is an Eneuresis?*

A. It is an involuntary discharge of urine, arising from a want of power in the sphincter of the bladder†, or from the stimulus given by the irritation from calculi, rubbing against the neck of the bladder; or from a laceration of parts, by the operation of lithotomy, and from the pressure of the uterus in a state of pregnancy‡.

* Eneuresis, *Sauvagesius, Cullenus, Vogelius, Linnæus, Sagarus. Perirrhœa, Hippocrates. Parexis Aretæus Stranguria, Galen. Incontinentia Urinæ, Sinnertius.*

† Eneuresis Paralyticorum, *Funcher.*

‡ Eneuresis Gravidarum, *Mauriceau.*

Q. 289. *How is Eneuresis to be treated?*

A. When Eneuresis arises from a want of tone in the sphincter of the bladder, the cure is very difficult. It is, however, to be attempted, by endeavouring to restore it as much as possible, by the use of bark, cold bathing, wine, and the application of blisters to the perineum. When Eneuresis arises from the irritation of calculi, opiates and mucilaginous liquors are to be used. When these fail to give relief, a removal of the calculi by an operation becomes necessary. When Eneuresis arises from a laceration of parts, in performing the operation of lithotomy, some relief may be obtained by using gentle pressure, by an instrument termed *jugum penis* in the male, and by *peffaries* in the female, to press against the urethra. These peffaries ought to be made, as already recommended (Q. 155.), for prolapsus uteri. In cases where the *jugum penis* cannot be used with propriety, an instrument may be worn between the legs, to receive the urine, as it drops from the penis.

GEN. XXII. *MUCOSA.*

GONORRHEA VIRULENTA.

Q. 290. *What is a Gonorrhea Virulenta?*

A. By the term Gonorrhea Virulenta, is generally understood, a discharge from the urethra of the male, and vagina of the female, occasioned by the venereal virus acting against the glands of the affected surface.

Q. 291. *How is Gonorrhea Virulenta to be treated?*

A. By removing the poison as much as possible, by mild washes, or allowing it to disappear spontaneously, and palliating the symptoms by opiates, to allay the pain and chordee, and by oil or mucilage, to supply the place of mucus to the abraded surface of the vagina or urethra.

* Gonorrhea Virulenta, *Cullenus, Sauvagesius, Sagarus, Vogelius, Linnæus.*

PYURIA*.

Q. 292. *What is a Pyuria?*

A. It is a discharge of mucous matter, occasioned by the irritation of calculi either in the ureter, bladder, or urethra, and sometimes assuming the form of pus.

Q. 293. *How is Pyuria to be treated?*

A. By removing the occasional cause, if possible, by using mild mucilaginous and diluent liquors, and an antiphlogistic regimen, joined, however, with opiates.

* Pyuria, *Sauvagesius*.

C L A S S III.

V I T I A.

ORD. I. DIALYTICA*.

GEN. XXIII. CRUENTA.

VULNUS†.

Syn. WOUND.

Q. 294. *What is a Wound?*

A. It is a solution of continuity in any of the soft parts of the body, attended with hemorrhagy, and a corresponding division of the external integuments.

VAR. A. INCISUM‡.

Syn. SIMPLE WOUND.

Q. 295. *What are the Phænomena that occur in a simple incised Wound?*

A. Where a wound is made across the

* Vitia, Dialectica, *Linnaeus*.

† Vulnus, *Sauvagesius*, *Linnaeus*, *Vogelius*, *Platnerus*, *Gaubius*.

‡ Vulnus Simplex, *Sauvagesius*.

direction of the fibres of a muscle, on withdrawing the instrument a vacancy is immediately perceived, and a loss of substance. A hemorrhagy instantly ensues, which, however, gradually subsides, upon the parts being exposed for some time to the external air. The arteries contract, and at last a serous discharge only takes place, which in a short time also stops. In the course of a few hours, a parched state of the skin occurs, and a degree of pain, which is seldom felt in the early stages of the affection. A redness of the part, and swelling succeed, and a degree of pyrexia. When these symptoms continue violent, for some time, mortification is apt to ensue. But when they are moderate, and proceed in a gradual manner, an oozing of serum takes place, on the parched surface of the wound. This serum being gradually converted into pus, the other symptoms begin to abate. New granulations being now formed on the surface of the wound, fill up the vacancy, and so accomplish a cure.

Q. 296. *What Prognosis can be given of simple incised Wounds?*

A. Wounds heal most readily in healthy and sound constitutions, when the tones of the muscular fibre is most complete. Wounds are generally difficult of healing in venereal and scrophulous constitutions. Wounds heal more readily in the belly, than on the tendinous parts of muscles; or when they are inflicted on tendons passing over joints. Wounds of the bones are difficult of healing, as an exfoliation of the bone is often the consequence. Wounds in glandular parts are more dangerous, than what their first symptoms might seem to indicate, as scirrhus of them often ensue, and a cicatrix is with difficulty effected, the sores becoming fungous (Q. 226.). When a nerve is completely divided, the parts below it are deprived of motion, and sensibility to a certain degree left. When it is partially divided, high degrees of inflammation, convulsions, locked jaw, and, in some cases, death follow. Wounds of the large arteries and veins are always dangerous, as the

Q 4

hemorrhagy

hemorrhagy from them may occasion immediate death; or, the parts below being deprived of the necessary quantity of blood, mortification ensues. Wounds penetrating the large cavities of the joints are always dangerous, by the admission of the external air, into cavities unaccustomed to it. High degrees of inflammation are the consequence. Wounds may at last prove fatal, which at first did not seem to be attended with any danger; such as, wounds of the lungs, aorta, and stomach. By a partial debility occasioned in any part of a bowel, a rupture at last may be the consequence (Q. 113.). Inflammation arising from wounds, being communicated to viscera important to life, is always attended with danger.

Q. 297. *How is a simple incised Wound to be treated?*

A. By obviating the hemorrhagy, (Q. 238.), and then extracting any extraneous body, that may happen to be introduced into the wound, when it can be done, without tearing or injuring the neighbouring parts; and particularly where
it

it happens to be of a stimulating nature. But when the case is otherwise, when the substance introduced happens to lie deep, and is not of a very stimulating nature, nor contiguous to any considerable blood vessel, it is to be allowed to remain, until the supuration formed in the wound throws it out. But when the wound is inflicted by a clean cutting sharp edged instrument, and when no extraneous body happens to be introduced, the edges of the wound are to be immediately brought into contact, and kept in that state by adhesive plaisters or or futures, until an exudation of the glutinous parts of the blood forms an adhesion of opposite sides, when new vessels shoot out, and support the parts afterwards more fully. In this manner the wound is healed, by what has been named the *first intention*.

Q. 298. *What are the Sutures, that are generally used, for retaining the edges of Wounds in Contact?*

A. The different kinds of futures must,
in

in some cases, be adapted to the form of the wound. When the wound is very deep a future, named *interrupted*, has been used. By inserting two needles on one ligature, and introducing each of them at the bottom of the wound, they are to be pushed outwardly, at a proper distance from the edges of the wound; then the needles are to be taken off the ligature, which is now to be pulled a little, so as to bring the edges of the wound into contact. A number of these are to be introduced, according to the extent of the wound. When the retraction from the edges of a wound is very considerable, a future, termed *twisted*, has been recommended; particularly when the wound is not very deep. It is executed by introducing two or more pins, according to the extent of the wound, through both its edges. After placing the edges in contact upon the pins, a wax ligature is to be twisted, so as to form a figure of 8. In wounds of the abdomen and intestines, a future has been recommended, named *GLOVER'S future*. It consists of a great number

number of stitches, connected in a spiral direction, along the edges of the sore.

Q. 299. *On what does the want of success in the Cure of simple incised Wounds depend?*

A. When the discharge from the sore is excessive, so as materially to weaken the patient; when no proper pus is formed on the surface of the sore; when the retraction is so considerable, that the edges cannot be brought into contact, and when high degrees of inflammation and pain occur, such circumstances are always prejudicial to the healing of wounds.

Q. 300. *How are the circumstances (Q. 299.) tending to prevent the Cure of simple incised Wounds to be obviated?*

A. When the discharge from the sore is excessive, the patient's strength is to be supported by a proper diet. When no pus is formed on the surface of the sore, the application of heat, by means of poultices, and a proper regimen are to be used.

Poultices

Poultices are not, however, to be too early applied, as a certain degree of inflammation is necessary, for secreting the serum (Q. 2.), which is afterwards converted into pus. Poultices are immediately to be laid aside as soon as pus is formed; for, when they are continued longer, they seem to do harm. When the retraction of the edges of the wound is considerable, to hasten the cure, the edges are to be brought as nearly in contact as possible, by relaxing the neighbouring muscles. High degrees of inflammation are to be obviated, by an antiphlogistic regimen (Q. 8.), particularly by both general and topical blood-letting. In cases of extraordinary pain and irritation, opiates are to be used and the irritating causes removed, if possible.

VAR. B. PUNCTURA §.

Syn. PUNCTURED WOUND.

Q. 301. *From whence arises the danger of Punctured Wounds?*

A. From their form, which is always more favourable for allowing matter to lodge within them; from the chance of a nerve or tendon being partially divided, and of some great blood vessel deeply seated, being wounded, which cannot be readily secured, or laid hold of.

Q. 302. *How are Punctured Wounds to be treated?*

A. To effect a cure of a Punctured Wound some recommend a certain degree of inflammation to be produced, by means of a seton, or irritating injection, and then, by compression, to keep the sides of the wound in contact. Others recommend a free and extensive incision to be made in the fore, so as to convert it into the form of a simple

* Punctura, *Sauvagesius, Linnæus, Sagarus.*

incised

incised wound (Q. 297.). The first of these may be sometimes used with propriety, when no extraneous body is lodged in the wound; when no considerable hemorrhagy takes place; when the punctures lie deep and contiguous to some large blood vessels; when the punctures pass into the opposite side of the integuments, so that a counter opening can be made opposite to the puncture. But when on the contrary the direction of the wound is such, as not to admit of a counter opening, when there is reason to understand some extraneous body is lodged in the wound, or by the hemorrhagy, that some considerable blood vessel has been wounded, which cannot be laid hold of, then an extensive incision is to be made into the wound, so as to convert it into the form of a simple incised wound. In some cases, when the seton cannot be introduced, throwing in injections of mild astringent substances, may have some effect; but these are never to be attempted until every other method has failed, as they are apt to produce a degree of callosity on the surface of the wound, which is always unfavourable

for the healing. The injections generally used, are oak bark, wine, lime water, and saccharum saturni. In some cases, also, the external opening of the wound heals, before granulations are formed at the bottom. This ought to be guarded against by proper tents, which swell by the moisture of the fore, and so keep the wound of the same size.

Q. 303. When a Nerve or Tendon is partially divided, what are the consequences?

A. When, in performing the operation of blood-letting, a nerve happens to be partially divided, from the prick of a lancet, the whole of the part soon after the operation assumes an erysipelatous appearance; the parts about the wound become tense, and the pulse becomes hard and quick; the pain grows intense; the patient is exceedingly restless; twitchings of the tendons, and a locked jaw, often take place; and the patient is at last carried off in a fit of convulsions.

Q. 304.

Q. 304. *How are Wounds of Nerves and Tendons to be treated?*

A. From the degrees of inflammation that ensue from wounds of the nerves, the antiphlogistic regimen has been generally recommended. Several topical applications have also been used; particularly solutions of *saccharum saturni*, which is preferable to any warm application. By many the warm bath has been recommended, and by others the cold bath. When locked jaw has taken place, mercurials and emollients have been recommended. When the pain is excessive, opiates, in full doses, are attended with the best effects. When all these remedies fail, it has been advised to make a free incision in the parts, above the place chiefly affected, when immediate relief is said to be obtained, by a division of the contiguous nerves and tendons. The after treatment of the wound, is the same as recommended already for simple incised wounds (Q. 297).

VAR. C. LACERATURA *.

Syn. LACERATED WOUND.

Q. 305. *What is a Lacerated Wound, and how is it to be treated?*

A. A lacerated wound is occasioned by forcibly tearing asunder parts, without a cutting instrument, and is attended with ragged edges. Such wounds are to be treated, by using an antiphlogistic regimen, and by applying the edges of them as close together as possible, as already recommended (Q. 297.).

VAR. D. CONTUSURA §.

Syn. CONTUSED WOUND.

Q. 306. *From whence arises the danger of Contused Wounds?*

A. From the chance of the organization of the part being completely destroyed, so

* Laceratura, *Linnæus*.

§ Contusura, *Linnæus*.

that circulation may be impeded, and mortification be the consequence. The irritation of contused wounds is also sometimes so very considerable, as to excite such a degree of inflammation, as will terminate in gangrene, notwithstanding every method taken to prevent it.

Q. 307. How is a Contused Wound to be treated?

A. When the injury done to the part has been so very considerable, as to destroy the vessels of the part intirely, and when, in consequence of mortification, a separation of the contused from the sound parts takes place, or when the contusion has been extensive, it may prove fatal, particularly when it happens upon parts essential to life. The principal object, in the treatment of contused wounds, therefore, is to obviate gangrene as much as possible, by preventing high degrees of inflammation from taking place, by a strict antiphlogistic regimen, and particularly topical bleeding with leeches. The parts are to be covered with
emollient.

emollient poultices, to favour the formation of pus, but when, notwithstanding every attempt, gangrene has once come on, all further discharges are to be prevented, and the most nourishing diet, with wine and bark, are to be used. The bark is to be taken into the stomach, in such quantities as it can bear.

Q. 308. How are Wounds, penetrating the Capsular Ligaments of the Joint to be treated?

A. Though wounds of the Capsular Ligaments of the Joints, do not seem at first alarming, yet by exposure to the air the lining membrane of such cavities acquires such a degree of sensibility, as to endanger life, when it happens to be the cavity of some of the great joints. As soon, therefore, as any extraneous body pushed into the joint, is removed, the admission of the external air is to be guarded against, as much as possible. But when, from, inattention, or mismanagement, high degrees of inflammation are produced, an antiphlogistic regimen becomes necessary.

When matter, in consequence of such inflammation, is found within the cavity of the joint, it is to be evacuated, as recommended for dropfical swellings of the joint (Q. 97.). Where the ligament is much contused amputation becomes necessary.

Q. 309. *How are Wounds, penetrating the Trachea and Œsophagus, to be treated?*

A. The hemorrhagy is to be secured, as already recommended (Q. 238.). Should the carotid arteries happen to be divided, they are to be secured by ligature, as it gives the patient a small chance of life, from the brain being supplied by the vertebinals. If the jugular vein is wounded it is to be treated in the same manner. When wounds of the Trachea are of a longitudinal direction, straps may keep their edges in contact. The most common direction, however, of wounds of the trachea, is, a transverse incision between two of the cartilages. When they happen to run deep, the interrupted future (Q. 298.) is to be used. The head of the patient is to be at the same time kept in a bended state, during the cure.

Wounds

Wounds of the Œsophagus are to be treated in the same manner. In longitudinal wounds of the Œsophagus, a cure may be completed, without the assistance of art.

Q. 310. *How are Wounds penetrating into the cavity of the Thorax, distinguished from superficial Wounds of the Thorax?*

A. From the length, into which the instrument inflicting them, has penetrated. It may be also distinguished, whether wounds have penetrated into the cavity of the thorax, by throwing mild injections into them. If they are only superficial, the injections return immediately. When air is extravasated in the cellular substance (Q. 41.), it is a proof of the lungs being wounded, particularly when the quantity of blood discharged, is considerable, and of a frothy red colour. When blood is thrown up by the mouth, we may be certain of the lungs being wounded. The pulse also becomes feeble, and the breathing laborious, in wounds of the lungs, by the compression on them from the extravasated blood.

Q. 311. How are Wounds penetrating into the Cavity of the Thorax, and injuring its contents, to be treated?

A. When considerable hemorrhagy occurs, from the intercostal arteries lodged in the groove of the ribs, it is to be obviated, by a doffel of lint over the artery, and by surrounding the artery, rib, and portion of the pleura, by one ligature. The extravasated blood is, then, to be removed, as already recommended (Q. 127.). When the hemorrhagy proceeds from the lungs, a strict antiphlogistic regimen is adviseable. When the heart or any of the great vessels are divided, death is very soon the consequence, either from the immediate hemorrhagy occasioned, or from the partial debility, occasioned from the cicatrix. Should the wound happen to heal, an aneurism is formed (Q. 204.). When the thoracic duct happens to be divided, the patient ought to be kept for some time on a spare diet, which should be repeated frequently, and in small quantities. Whatever hastens the motion of the heart, or of respiration, is to be

be guarded against. When the diaphragm, or mediastinum, is wounded, all that can be done is to use a strict antiphlogistic regimen. In superficial wounds of the thorax, the cure is to be attempted by a seton or incision (Q. 302.). When in consequence of the inflammation of such wounds matter is formed, it is to be discharged as soon as possible, to prevent its penetrating the thorax.

Q. 312. *What are the Diagnostic Symptoms, whether Wounds have penetrated into the Cavity of the Abdomen?*

A. By attending to the depth, to which the instrument inflicting the wound has penetrated, and to the discharge from the wound, it can be readily distinguished, whether wounds have penetrated into the Cavity of the Abdomen. When a discharge of fœces, liquor pancreatis, or bile, takes place, it is a proof of the wound not only having penetrated the cavity of the abdomen, but also injured its contents. The state of the pulse may likewise assist the diagnosis; for when a great quantity of

blood is effused, fainting fits and cold sweats come on, and the pulse becomes low. When the stomach is wounded, singultus and vomiting of blood generally take place. When blood is also passed by stool, there is reason to suspect, that some of the bowels have been wounded; particularly some portion of the alimentary canal. When blood is discharged by the urine (Q. 243.), there is reason to suppose, the ureters or kidneys have been wounded. Wounds of the spleen and liver may be readily distinguished, from their situation. When the mesentery is wounded, a discharge of chyle takes place.

Q. 313. *How are Wounds, penetrating into the Cavity of the Abdomen, and injuring its contents, to be treated?*

A. When no alarming symptom occurs, immediately after a wound supposed to have penetrated into the Cavity of the Abdomen, the principal thing to be attended to, is, the prevention of the external air, as much as possible, from finding access into the cavity of the abdomen; as the consequence, from
the

the admission of it, might prove fatal, independent of any wound of the bowels. When any of the viscera protrude through the wound, and a mortification of them has taken place, they are to be treated as recommended for Hernia (Q. 144.). When any portion of the intestine is divided, it has been recommended to stitch it with the GLOVER'S suture (Q. 298.). The same suture may be also used in wounds of the stomach, when a strict antiphlogistic regimen ought to be adhered to, and nourishing injections should be thrown up by the anus to support life. When any of the lacteals are wounded, they are to be secured, if possible, by ligatures. When the kidneys happen to be wounded, the urine passing through the external wound, renders its edges callous, and so prevents it from healing. When this takes place, the callous edges of the sore are to be removed from time to time, by lunar caustic. When the bladder happens to be wounded, the GLOVER'S suture may be also used (Q. 298.). In wounds of the uterus, when in a pregnant state, the hemorrhagy that succeeds, is generally very
confi-

considerable. Little can be done to obviate it, until the fœtus is expelled. The contraction of the uterus will generally then effect a stoppage of further hemorrhagy. Should abortion, therefore, be threatened, upon wounds being inflicted on the uterus, nothing should be done to obviate it.

Q. 314. *How are transverse Wounds of the Orbicularis Muscle of the Eye, to be treated?*

A. When the divided portions are at too great a distance from one another, rather than draw them forcibly together, nature is to be trusted to make up the deficiency; but when the retraction of the edges is not considerable, the twisted suture (Q. 298.), is to be used, to retain the edges in contact. It must be used in such a nice manner, as not to render the eye-ball too tight, or impede its motion in the least. The eye should be closed, and a compress laid over it, so as to prevent its rolling. The compress is to be secured by a proper bandage.

Q. 315.

Q. 315. *From whence arises the Danger of Wounds of the Eye-Ball?*

A. From the high degree of inflammation, occasioned by such, either a partial or complete blindness is occasioned. The bones of the orbit being exceedingly thin, such wounds are in danger of affecting the brain. The danger of such wounds arise also from the extent of them; particularly when they are so considerable, as to allow the whole of the humours of the eye to escape. Specks are generally the consequence of wounds of the lucid cornea: These alone may occasion complete blindness.

Q. 316. *How is a Division of the Duct of the Parotid Gland to be treated?*

A. When the division is of a recent nature, and the saliva has not rendered the edges of the wound callous, by running over the cheek, both the sides of the wound are to be applied as close together as possible. But when the duct is entirely obliterated, and the saliva runs along the cheek,

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an artificial passage is to be made, which is to be kept afterwards open, by inserting into them a piece of bougie, until the edges grow callous. The bougie should then be removed, and the external wound treated in the common manner.

VAR. E. MORSURA*.

Syn. BITE OF MAD ANIMALS.

Q. 317. *How are Wounds, arising from the Bite of Mad Animals, to be treated?*

A. The injured part ought to be removed by the actual cautery, or scalpel, as soon as possible after the accident. It should be attempted, however, at any time before hydrophobia takes place, as there are instances of no alarming symptoms occurring for several weeks after the accident. Mercurial frictions, and sea bathing, are said to be of some service in preventing hydrophobia. The same method of cure has

* Morsura, *Linnaeus*.

also been recommended for the bite of the viper *. The cutting out of the part ought, however, to be more early performed, as the poison of vipers operates more quickly than that of other animals. In some cases, a few hours after the accident, languor, nausea, and vomiting, cold sweats, convulsions, and a yellow colour over all the body, takes place. Florence oil has been recommended in such cases. Whatever produces a copious sweat is found in general to alleviate the effect of the poison. When wounds are poisoned by the matter of lues venerea, cancer, or by some of the vegetable or mineral powers, the same mode of treatment is applicable, of cutting out the poisoned part.

VAR. F. SCLOPETOPLAGA†.

Syn. GUNSHOT WOUNDS.

Q. 318. *From whence arises the Danger of Gunshot Wounds?*

A. From the great degree of contusion

* *Vulnus Virulentum, Sauvagesius.*

† *Sclopetopлага, Sagarus. Vulnus Sclopetarum, Sauvagesius.*

attending

attending them, and the high degree of inflammation, which generally ensues, and which, when it does not terminate in direct mortifications, is apt to produce such a discharge of pus from their surface, as to exhaust the patient. The danger of gunshot wounds arises also, from their being sometimes attended with a fracture of the bones.

Q. 319. *How are Gunshot Wounds to be treated?*

A. The mode of treatment must be the same as recommended for contused wounds. Unless the hemorrhagy be profuse, there is no occasion for stopping it. The ball, and any extraneous body happening to be pushed in along with it, are to be extracted; particularly when they happen to be lodged in a bone, on account of the pain and tension they occasion from the unyielding nature of the bone. The ball may be extracted by the common forceps; if it cannot be effected in this manner, a counter opening is to be made in the opposite side, and the ball in this manner may be extracted.

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When a slough happens to form on the surface of the sore, nothing removes it so effectually, as a plentiful suppuration: but when the discharge happens to be very great, it is to be obviated, by supporting, in the first place, the strength of the patient, and afterwards removing any irritating substance, that may happen to be still lodged in the wound. When, in consequence of gunshot wounds, the large joints have been injured, by the ends of the bones being much shattered, or when one of the large bones of the extremities is shattered in its whole length, and attended with much contusion, and laceration of the corresponding soft parts, immediate amputation is advisable.

Q. 320. Providing a Surgeon has his choice, what are the most eligible parts of performing Amputation in the Extremities?

A. It always ought to be an unvaried rule, to save as much of the upper extremities as possible. When amputation is necessary below the knee, although the affection be in the ankle joint, nine inches

below the knee answers best in the adult. But when the affection is situated above this, amputation above the knee has been found, in every case, to answer best.

Q. 321. How is Amputation above the Knee Joint to be performed?

A. After laying the patient in an horizontal posture, on a proper table, or bed, a cushion is to be laid on the course of the femoral artery, above which the strap of the tourniquet (*Q. 238.*), is to be applied, a few inches above the part where the first incision is intended to be made. An assistant is now to sit on a low seat, before the patient, and to lay hold of the limb, while another pulls up the integuments. The surgeon now, standing on the outside of the patient, is with one sweep of the knife to divide the greatest part of the integuments; with a second sweep, which should be a continuation of the first, he is to complete the circle. As soon as the integuments are divided, a portion of them is to be dissected, by a scalpel from the muscles, so as to
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cover the stump completely. Then the surgeon is to take the amputation knife a second time, and he is to divide the whole of the muscles, a little higher up than the first incision in the integuments, perpendicularly to the bone. Then the muscles are to be separated a little from the bone, to admit of its being divided a little higher up than the muscles. Two retractors are then to be applied to support the soft parts, and keep them from being injured by the saw, with which the bone is now to be cautiously, and with gentle strokes, divided. As soon as the leg is removed, any protruding spiculæ left by the saw are to be taken off by a pair of pincers made for that purpose. If the femoral artery is discovered, it is immediately to be secured by a ligature. The tourniquet is then to be slackened a little, to discover any other vessels which may be easily laid hold of and secured (Q. 238.). Then the clotted blood is to be removed by a sponge, and the ligatures are to be allowed to hang out, at the inferior angle of the wound. The edges of the wound being now brought into contact, by drawing the

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integu-

integuments over the surface of the wound, they are to be retained by adhesive straps, so as to effect a cure by the first intention. The wound is then to be covered by soft lint, and the patient is to be laid in bed, and an opiate given him. The stump is then to be laid on a pillow, to which it should be fixed by straps, and the pillow should be also secured to the bed, to prevent any spasmodic starting of the stump. To obviate the inconvenience attending the pressure of the bed cloaths upon the stump, a frame with a number of hoops is generally recommended. The tourniquet should be allowed to remain still upon the limb, but in a very slack state, as it may be immediately straitened by the person attending the patient, upon any sudden hemorrhagy occurring, until the surgeon is called for, to secure the bleeding vessels.

Q. 322. In the after treatment of Amputation, what are the principal Circumstances to be attended to?

*A. To prevent excessive inflammation
from*

from taking place, by using a strict anti-phlogistic regimen. But this rule is not to be always followed in weak relaxed habits, where a different mode of treatment is necessary. The first dressings ought to be removed the third day after the operation, and new dressings are to be applied, as at first, every second day, until the inflammation has entirely subsided. Then the ligatures are to be removed, pulling them gradually and gently every day, until they are come easily off.

Q. 323. How is Amputation performed below the Knee Joint?

A. The first incision is to be made through the integuments as recommended (*Q. 321.*) for amputation above the knee. The muscles are to be divided in the same manner also; then the interosseus ligament is to be divided by a scalpel, or catalene, and the retractors applied in such a way as to protect the soft parts from the saw, with which the bones are to be divided, in such a manner as to have them both cut through

at the same time. The wound and after treatment is the same as recommended for amputation above the knee (Q. 321. and 322.).

Q. 324. *How is Amputation with a Flap performed, in the Hip Joint?*

A. A small cushion being placed over the femoral artery, immediately as it passes below Paupert's ligament, a circular incision is to be made, about four inches below the cushion, through the integuments. Then the muscles are to be divided perpendicularly down to the bone. A longitudinal incision is now to be made, on the posterior part of the thigh, with a scalpel, as far up as the acetabulum; a similar incision being made on the opposite and anterior part of the thigh, so as to form two flaps. The bone is to be turned inwards, to allow the point of the scalpel to reach the ligamentum rotundum of the joint. As soon as it is divided, the operation is finished, after securing the hemorrhagies as already recommended (Q. 238.), the flaps are to be applied close together, and kept in contact,
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until a cure is completed by adhesive straps.

Q. 325. How is Amputation performed at the Shoulder Joint, Toes, and Fingers?

A. The hemorrhagy may be managed, by pressing with the fingers on the subclavian artery, as it passes over the first rib; or by making an incision on the course of the artery, and securing it with a ligature, before beginning the operation. A circular incision is to be made about three inches below the head of the humerus; then two other incisions are to be made, one on the anterior, the other on the posterior part of the humerus, so as to form a flap, as recommended for amputation at the hip joint (*Q. 324.*). Amputation of the toes and fingers are generally performed in the joints, in the same manner, by leaving a flap of the soft parts, to cover the stump.

FRACTURA * COMPLICATA.

Syn. COMPOUND FRACTURE.

Q. 326. *What is a Compound Fracture?*

A. It is a loss of continuity in the substance of the bones, attended with a corresponding wound in the soft parts, and occasioned by external violence.

VAR. A. THLASIS†.

Syn. FRACTURE OF THE BONES OF THE HEAD, WITH COMPRESSION.

Q. 237. *What are the Diagnostic Symptoms attending Fracture of the Bones of the Cranium?*

A. The bones of the Cranium being beat in by external violence, diminish its cavity, by the depressed pieces occupying some of the natural space allowed for the brain. The

* Fractura, Sauvagesius, Cullenus, Linnæus, Gaubius, Villars.

† Thlasia, Vogelius.

blood effused, in consequence of fractures, may have also the same effect; so that, in either case, *compression* of the brain is the consequence. When this takes place, its functions are obstructed; an apoplectic stertor of the breathing comes on; loss of voluntary motion, convulsions, tremor, involuntary discharge of the urine and fæces, giddiness, dimness of sight, dilatation of the pupil; sometimes a hemorrhagy from the nose, eyes, and ears, occur, and sometimes the fracture of the bone may be distinguished through the external wound in the integuments. In some cases, however, fracture of the bones of the cranium occurs, without any external wound. In such a case, it is difficult to determine, whether a fracture has taken place or not. When a tumour, however, arises from a recent contusion, attended with the above symptoms, there can be no doubt of the existence of a fracture. But, in a few cases, compression has been found to take place, without any tumour arising. In such cases the head ought to be shaved, and an equal degree of pressure ought to be laid over the whole of it, when

the injured part is easily discovered from the rest, by its being more painful. When compression of the brain arises from extravasation of fluids, as blood, serum, or pus, in consequence of inflammation, occasioned by fracture of the bones, the seat of it is difficult to determine; particularly when no depression takes place, or when no external wound is seen in the integuments.

Q. 328. How is Compression distinguished from Concussion of the Brain?

A. The symptoms attending compression of the brain, occur also in concussion, but, in a compressed state of the brain, they are more permanent. There is also an apoplectic stertor in the breathing, which is always wanting in patients labouring under concussion; for they seem in a sound natural sleep. The pulse is also soft and equal in concussion, and not irregular and slow, as in cases of compression. When, upon extracting a small quantity of blood, the pulse is found to sink considerably, there is reason to suppose it depends upon concussion. When,
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on the contrary, the pulse grows stronger and fuller, there are good grounds for suspecting that the affection depends upon compression.

Q. 329. How is Compression of the Brain, arising from a Depression of the Bones of the Cranium, to be treated?

A. The wound is first to be enlarged, to ascertain the existence of the fracture. Its situation and extent is then to be attended to. When several detached pieces of the cranium press upon the brain, they are to be removed by a forceps. But when a portion of the cranium presses upon the brain, and is not detached from the other bones of the cranium, and is so situated, that it can neither be removed, nor raised into the same level with the rest of the bones, without a considerable risk of injuring the brain very materially, an instrument, named *trepan*, has been generally employed, to make a perforation, at the points, preventing the bone from being raised, so as to admit

admit of an instrument for elevating the depressed portion of the bone. Such perforations are, however, attended with more danger in some parts of the cranium than in others. A complete knowledge, therefore, of the anatomy of the head, is absolutely necessary. The most dangerous parts are the frontal sinuses and the back part of the occipital bone. As soon as this operation is determined to be performed, a small portion of the pericranium may be removed by a scalpel, just equal to the modeolus of the trepan. A small hole is, then, to be made with a perforator, to admit of the center pin of the trepan, which ought to be of a cylindrical form. A portion of the depressed piece may be included within the circular division, made by the trepan. The weight of the instrument, during the operation, is to be laid on the contiguous sound bone. Several turns being now performed by the saw, the center pin is to be removed. The surgeon may use either a trepan or trephine; but the former executes the operation much quicker, and answers equally well, by moving it slowly and cau-

cautiously, when he has nearly penetrated through the bone; or the surgeon may begin the operation by the trepan, and finish it by the trephine. The trepan ought to be frequently removed, to examine what depth it has penetrated. Every time it is removed, it is to be rubbed with a small brush, made for the purpose. As soon as the surgeon has come to the diploe, he is to secure any hemorrhagy of consequence, that may occur (Q. 238.). When the bone is nearly divided through, if one portion of the bone is completely divided, and the rest still uncut, the pressure of the instrument is to be entirely applied to the undivided portions. As soon as the bone is found loose, it is to be removed by a small forceps, made for that purpose. The depressed portion of the bone is now to be raised, by an instrument termed a *levater*, introduced at the opening made by the trepan, below the depressed portions of the bones. If, after applying a considerable degree of force, the bone cannot still be raised, and if it seems to be wedged in by some other process of bone, the trepan is to be applied again at
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that part. The depressed piece being now raised, and any extraneous body that may happen to have been pushed in upon the dura mater, extracted, the clotted blood, or serum being also removed, the wound is to be dressed with a little lint, spread over with some simple ointment, and the patient is to be laid in bed in the easiest manner. Inflammation of the brain is now particularly to be guarded against, by a strict antiphlogistic regimen. The matter formed on the surface of the wound, is to be removed cautiously, by a sponge. By degrees, new granulations form on the surface of the dura mater, and sometimes extend beyond it, and form tumours; which may be easily removed, by ligature, or they may be touched by lunar caustic.

Q. 330. In Cases of Compression of the Brain, from Extravasation of Fluids, when the seat of the Injury cannot be ascertained, ought the Trepan to be applied?

A. An ambiguous remedy is always preferable to leaving the patient to certain death. The prognosis as to its success, should

should therefore, be always guarded. When an operation is to be attempted, the first perforation ought to be made in the most inferior point of the cranium, in which an operation can be, with propriety, attempted. If any fluid is discharged by the opening, another perforation ought to be made. If the collection happens to be between the dura and pia mater, a small hole may be cautiously scratched in the dura mater.

Q. 331. What are the Symptoms, that prognosticate Success, from the Operation of the Trepan?

A. When, upon the removal of the compression, an immediate advantage seems to be derived, by the patient becoming less stupid, and his breathing less oppressed, and when the pupils begin to contract upon being exposed to a strong light, a deal of success may be expected, from the operation; and even although these favourable symptoms do not immediately occur, upon the compression being removed, still the success may be compleat.

Q. 332.

Q. 332. *Ought the Trepan to be applied in every simple fissure of the Cranium?*

A. When a simple fissure is not attended with the symptoms of compression, the trepan should never be applied, as the application of it, by the most cautious operator, cannot fail to injure the dura mater materially. A simple fissure may extend through one table of the skull only. In such cases the application of the trepan does a great deal of harm, by admitting the external air upon the surface of the dura mater. Should any extravasation take place, from a laceration of vessels, in simple fissures, the compression induced by such is indicated by the symptoms (Q. 329.), attending compression. In such cases the trepan is to be applied; but in simple fissures, not attended with such symptoms, the antiphlogistic regimen alone is sufficient.

Q. 333. *How is Concussion of the Brain to be treated?*

A. As the causes seem to act by producing a derangement of the organization of the
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the brain, consequently a diminution of its natural powers, stimulants have therefore been used with greater success in cases of concussion, than any other remedies ; particularly wine, cordials, nourishing diet, and external stimuli to the surface of the body, as blisters and rubefacients.

Q. 334. *What Prognosis should be given of Affections of the Brain in general, produced by external violence?*

A. From the delicacy of the organization of the brain, from its situation, from its being often affected, when no mark of external violence is observed, from the difficulty of removing affections of the brain, although the seat of the injury was ascertained, and from the most violent symptoms not always occurring from the largest fracture, but from several circumstances, perhaps unknown, the prognosis in affections of the brain from external violence, ought always to be guarded.

VAR. B. FRACTURA COMPLICATA
OSSIIUM EXTREMITATUM.

COMPOUND FRACTURE OF THE EXTRE-
MITIES.

Q. 335. *How are Compound Fractures of the Bones of the Extremities to be treated?*

A. The hemorrhagy attending such fractures, is to be obviated, as already recommended (Q. 228.). But when the vessel, from which the hemorrhagy proceeds, is situated so deep, that it cannot be brought into view, or secured, without making extensive incisions into the substance of the limb; or when the ends of the bones are much shattered, and detached from one another, so that there is an impossibility of their uniting again, immediate amputation is adviseable. But when the hemorrhagy can be easily secured, the fractured ends of the bones are to be placed as exactly into their natural situation as possible, by relaxing the muscles, and by using a small degree
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of extension, if the fractured ends happen to overlope one another. The high degree of inflammation that generally succeeds, is now to be guarded against, as much as possible, by preventing the accession of the external air into the wound, and by a strict antiphlogistic regimen. But when, notwithstanding of every precaution, the inflammatory symptoms run so high, as either to occasion extensive mortification, or to endanger the patient's sinking under the discharge, amputation is to be performed, as soon as the inflammation is diminished, as amputation can only be at this period of the affection used with propriety. For the hemorrhagy in the extremities can be for some time stopped, by means of the tourniquet, and the detached portions may have some chance of uniting. Mortification never takes place after the accident, and the discharge from the wound is never considerable, until the first inflammation is over. Therefore amputation should never be performed immediately after the accident; as it is ascertained, as a fact, that a greater proportion have died, of those on whom the

operation was early performed, than of those where it was delayed, until the first inflammation was over. All that is, therefore, requisite, in the first stage of the affection, is, to alleviate the inflammatory symptoms as much as possible. The limb is to be placed in such a situation, as to allow it to be dressed without moving it. Any portion of bone, protruding through the wound, is to be removed, and the wound itself is to be treated, as recommended already (Q. 305.), for lacerated wounds.

GEN. XXIV. *INCRUENTA.*

FRACTURA SIMPLEX.

SIMPLE FRACTURE.

Q. 336. *What is a simple Fracture?*

A. It is a loss of continuity in the substance of the bone, not attended with any wound in the corresponding integuments.

Q. 337.

Q. 337. What are the Diagnostic Symptoms of simple Fracture?

A. By the tumefaction, occasioned by the alteration of the shape of the limb; by the loss of function, and the acute pain generally occasioned by the fractured ends of the bone, lacerating the contiguous soft parts, a diagnosis may be easily found. The pain is sometimes so intense, as to occasion convulsions, and even death, before actual gangrene has taken place. The grating noise of the bones may be also observed. By attending also to the degree of violence, the situation of the wound, when the injury is inflicted, and the habit of body of the patient, the diagnosis may be confirmed. For it is evident, that the bones are rendered more brittle by disease, such as the lues venerea, and sea-scurvy. Bones are also more brittle in elderly persons, and are more easily broken in their middle, it being the hardest and most unyielding part. Bones are also more easily fractured, when laid on uneven surfaces, at the time the injury is inflicted.

Q. 338. *What Prognosis should be given of simple Fracture?*

A. When the fracture occurs in the state of youth, in a sound healthy constitution, when the small bones of the extremities are only affected, when the fractured ends can be easily kept in contact, or when the fracture happens in the middle of the long bones, the prognosis may in general be favourable. But when a fracture is attended with lues or scurvy; when the patient is of an old, infirm constitution; when any of the large bones, as that of the humerus, are fractured near their extremities, so that the retention of them becomes difficult; when exfoliation takes place, and when the injury done to the soft parts has been considerable, so as to occasion high degrees of inflammation, the prognosis should be always guarded.

Q. 339. *How are simple Fractures to be treated?*

A. The bones are to be placed as nearly as possible in their natural situation, as
recomm-

recommended for compound fracture (Q. 327.). The inflammatory symptoms are to be obviated, by a strict antiphlogistic regimen, to prevent the formation of deep seated abscesses, which are generally the consequence of inflammation, produced by contusion, attending simple fractures.

Q. 340. *On what does the want of Success in the Cure of simple Fractures, depend?*

A. The want of success generally arises from the extremities of the fractured bones, not being properly applied together; or owing to their not being retained with exactness, after they had been once replaced. The want of success also arises from a superabundance of callus, growing so luxuriantly that nothing is found to prevent it. In such a case, pressure with a plate of lead has been recommended, together with ardent spirits to be rubbed upon the part. Constitutional diseases also retard the cure of fracture. Sometimes the fractured ends of the bone become smooth by their

rubbing against one another, as to prevent them from uniting. In such cases an incision is to be made upon the fractured part, and a small portion of the callous and smooth edges are to be removed from the ends of the bone. When detached portions of the bone are deprived of the circulation necessary for the formation of callus, and when their union with the rest of the bone cannot be effected, they are to be removed, as they act as extraneous bodies. When a portion of muscle, or any other soft part, intervenes between the fractured ends of the bone, it occasions the most excruciating pains, upon the least motion of the limb, and is always highly unfavourable to the cure. In such a case, when the part cannot be disengaged from between the ends of the bones, after placing the limb in various positions, an incision is to be made, over the fractured parts, which are to be then disengaged. When collections of blood are formed between the muscles, by the sharp spiculæ of bones wounding some of the blood-vessels, they are to be removed, and the vessels, from whence they proceed, are

are to be laid hold of, and secured as already recommended.

FRACTURA OSSIUM NASI.

FRACTURE OF THE BONES OF THE NOSE.

Q. 341. *How are Fractures of the Bones of the Nose to be treated?*

A. Fractures of the bones are found to destroy the sense of smelling altogether, and lay the foundation of troublesome ulcers. The bones of the nose, when fractured, are to be laid as exactly in their natural situation as possible, in the same manner, as recommended for dislocation of the bones of the nose (Q. 217.). The inflammatory symptoms are to be particularly guarded against, as they often occasion exfoliations of the bones of the nose, and lay the foundation for polypi (Q. 217.).

FRACTURA OSSIIUM FACIEI.

FRACTURES OF THE BONES OF THE
FACE.

Q. 342. *What are the Diagnostic Symptoms of Fractures of the Face?*

A. Fractures of the Bones of the Face are generally attended with deformity, owing to the bones being pushed into the antrum maxillare. Fractures of the lower jaw are also distinguished, by the degree of deformity they occasion, and from the pain and inequality felt.

Q. 243. *How are Fractures of the lower Jaw and Face to be treated?*

A. They are to be replaced, as exactly as possible, into their natural situation. The surgeon is to introduce the fingers of one hand on the inside of the jaw, while he directs with the other, the fractured ends on the outside of the jaw. As soon as the bones are properly placed, they are to be

be supported by proper splints and a bandage. The patient is to avoid moving the jaw, for some time. In fractures of both jaws, the same mode of treatment is equally applicable. When any of the bones of the face are depressed into the antrum maxillare, they are to be elevated, by a proper forceps, and kept in a level with the rest of the bones of the face, by adhesive plaisters.

FRACTURA OSSIUM THORACIS.

FRACTURES OF THE BONES OF THE THORAX.

Q. 344. *What are the Diagnostic Symptoms of Fractures of the Clavicle, Ribs, and Sternum.*

A. In fractures of the Clavicle, one end of the fractured bone seems to be more depressed than the other, owing to the weight of the arm, drawing the fractured end of the bone along with it. Fractures of the Ribs are distinguished, by the inequality felt

felt by the fingers. They are often so slight as not to be attended to; at other times they produce alarming symptoms, as spitting of blood (Q. 240.), and extravasation of air into the cellular substance (Q. 41.). Fractures of the Sternum are attended with symptoms similar to those of the ribs; as cough, and oppression of breathing. Very often a fracture of this bone takes place, without the fractured ends changing their situation.

Q. 345. *How are Fractures of the Clavicle, Ribs, and Sternum, to be treated?*

A. In Fractures of the Clavicle, merely raising the arm, and keeping it for some time in a proper height, fully answers all that is necessary. This is to be executed by a sling hung round the neck. In fractures of the Ribs, all that can be done, is, to surround the body by a wide roller, to prevent any inequality that may arise from the fractured ends of the rib. When the Sternum is fractured, and produces alarming symptoms (Q. 344.), an incision is to be

be made over the part suspected to have been fractured, and the depressed portion is to be raised by means of a levator, as in operation for the trepan (Q. 329.).

FRACTURA OSSIIUM SPINÆ.

FRACTURES OF THE VERTEBRÆ.

Q. 346. *What are the Diagnostic Symptoms of Fractures of the Spine?*

A. Fractures of the Spine are distinguished, by the loss of motion in the lower extremities. From the injury done to the spinal marrow, there is also a degree of paralysis produced. When the os sacrum is fractured, the symptoms occur, as in fractures of the rest of the spine.

Q. 347. *How are Fractures of the Spine and Ossa Innominata to be treated?*

A. When a depressed portion of a vertebra presses upon the spinal marrow, and is the occasion of all the alarming symptoms (Q. 346.), it is to be elevated by making a per-

perforation with the trepan, as in fractures of the cranium (Q. 329.). When the os sacrum is fractured near its extremity, the surgeon after introducing his finger into the anus, is to push the bone into its natural place. In fractures of the ossa innominata the same mode of treatment, as recommended for fracture in general, is to be adopted; by keeping the patient in an easy unconstrained posture, and by the application of a proper bandage, according to the situation of the fracture, and the judgment of the surgeon.

FRACTURA SCAPULÆ.

FRACTURE OF THE SCAPULA.

Q. 348. *How are Fractures of the Scapula to be treated?*

A. The fractured portions of the bone are to be brought as nearly into contact as possible, and then retained, by a long roller, during the cure. The arm is to be suspended at the same time as much as possible, in order to relax the contiguous muscles.

FRACTURA OSSIS HUMERI.

FRACTURES OF THE SHOULDER BONE.

Q. 349. *How are Fractures of the Os Humerus to be treated?*

A. After relaxing the whole of the muscles, as much as possible, if the fracture is distinguished to be of an oblique direction, so that one of the fractured bones overlaps the other, a moderate degree of extension is to be used, so as to bring the fractured ends, as nearly as possible, into their natural situation; when they are to be retained, by means of a long roller, and by splints, and the arm is allowed to hang. But when the fracture happens to occur in a transverse direction, the arm is not to be allowed to hang, as it prevents the fractured ends from coming into contact. In such cases, therefore, it is to be suspended by a proper bandage, or sling, hung about the neck. An antiphlogistic regimen is in every case necessary, to prevent inflammation.

FRAC-

FRACTURA OSSIIUM ULNÆ, RADII,
CARPI ET DIGITORUM.

FRACTURE OF THE ULNA, RADIUS, CARPI
AND FINGERS.

Q. 350. *How are Fractures of the Bones of the Fore-Arm to be treated?*

A. As soon as the surgeon has replaced the bones, as already recommended (Q. 327.), splints are to be applied, in such a manner, as not to impede the circulation, in the fore-arm observing always, that the Radius be uppermost, when the splints are applied. The arm then is to be supported, in the same way as recommended for fractures of the humerus (Q. 349.). But in fractures of the Olacranon only, the arm is to be kept for some time in a distended state, with splints laid along the course of the Olacranon, and secured by a proper bandage, which is to be loosed once a week, to prevent any contraction, or stiffness of the joint; which should be from time to time rubbed with some mild ointment.

When

When the bones of the Carpus happen to be fractured, little can be done, for the retention of them. An antiphlogistic regimen is to be enjoined and a small splint of pasteboard applied according to the situation of the fractured bone. When any of the bones of the fingers happen to be fractured, splints of pasteboard are to be used. They are to be applied when wet, so as to assume the form of the finger more readily. These splints may be afterwards secured by a narrow roller, which should be loosed from time to time, to prevent a stiffness or contraction of the joint.

FRACTURA OSSIS FEMORIS.

Syn. FRACTURE OF THE THIGH BONE.

Q. 351. *How are Fractures of the Os Femoris to be treated?*

A. By relaxing the muscles as already recommended (Q. 327.), either by the hand or by instruments; and, as soon as the fractured ends of the bone are brought as nearly into contact as possible, retaining them in that state, by a proper bandage, and two
splints

splints of pasteboard. One of these should extend, from the top of the thigh, to a few inches below the knee; the other should extend, from the spinous process of the os ilii to a little below the knee also. Both of these splints are to be covered with flannel, and the limb is then to be laid on a pillow, fixed with straps to the bed. An eighteen-tailed bandage being laid over this pillow, the leg is to be laid over the bandage. The first of the splints is then to be laid on the outside of the thigh, and the other of them is to be applied on the inside; both of which are now to be secured by the bandage, with such a degree of tightness, as not to obstruct the circulation in the part. The leg, being now secured by the bandage, is to be fixed by straps to the pillow, to prevent any convulsive startings from taking place during the cure. When fracture happens to be of an oblique direction, the retention becomes more difficult. Several machines have been invented to effect a retention by Dr. AITKEN and others.

Q. 352. *From whence arises the want of success in the Cure of Fractures of the Thigh?*

A. From the difficulty of discovering, with exactness, the direction and extent of the fracture, and from the quantity of muscles, covering that bone. Fractures of the neck of this bone being mistaken for a dislocation of it (Q. 184.), often prevents the cure. The want of success also arises from the difficulty of knowing precisely when the ends of the fractured bones are exactly in contact, from the difficulty of retaining them in that situation, and from the extraordinary strength of the muscles of those parts, which contract upon the least change of posture of the body.

FRACTURA OSSIS PATELLÆ.

FRACTURE OF THE PATELLA.

Q. 353. *How are Fractures of the Patella to be treated?*

A. In no case of fracture, is it more necessary

cessary to relax the whole of the muscles, and to obviate the inflammatory symptoms, than in those of the patella. They generally occur in a transverse direction; the leg is to be kept, therefore, for some time, in an extended posture; two cushions are to be applied, one above and the other below the fracture. They are then to be surrounded, together with the leg, by two circular straps, with two transverse straps fixed to them, which being tightened, make both compresses approach one another. The bone is now to be kept in this situation for a fortnight, unless the pain or inflammation render it necessary to remove them earlier.

FRACTURA OSSIIUM TIBIÆ, FIBULÆ, TARSI, AND DIGITORUM PEDIS.

FRACTURES OF THE BONES OF THE LEG AND FOOT.

Q. 354. *How are Fractures of the Bones of the Leg and Foot to be treated?*

A. In the same manner as recommended
for

for fracture in general, by applying splints of pasteboard, and an eighteen-tailed bandage (Q. 351.), laying the leg on its side, with the knee a little bent. Fractures of the bones of the tarsus and toes, are to be treated in the same manner, as recommended for those of the fingers (Q. 350.).

CONTUSIO *.

Syn. CONTUSION AND SPRAIN.

Q. 355. *How are Contusions and Sprains to be treated?*

A. The swelling of the part is to be obviated, by an antiphlogistic regimen, particularly by topical bleeding, by leeches. When the pain is excessive, opiates are found to be of service. Astringent solutions are applied sometimes to the part with advantage.

* Contusio, Sagarus, Sauvagesius, Vogelius.

RUPTURA *.

Syn. RUPTURED TENDON.

Q. 356. *How is a Ruptured Tendon to be treated?*

A. By relaxing the muscles of the part, as much as possible, and bringing the ruptured ends of the tendons as nearly into contact as possible, and endeavouring afterwards to keep them in that situation, until an accretion of the ruptured ends take place.

* Ruptura, *Sauvagesius, Linnaeus.*

GEN. XXV. CUTANEUS.

EXCORIATIO *.

Syn. EXCORIATION OF THE SKIN.

Q. 357. *How is Excoriation of the Skin to be treated?*

A. By removing the irritating cause as much as possible, and covering the part with some liniment of wax and oil. When the pain attending it is excessive, emollient poultices are adviseable.

RHAGAS †.

Syn. CHOPPED NIPPLE.

Q. 358. *How are Chopped Nipples to be treated?*

A. When the Nipples are much chopped,

* Excoriatio, Sagarus. Excoriatura, Linnæus, Sauvagesius.

† Rhagas, Sauvagesius, Vogelius, Linnæus, Sagarus.

the child should not be allowed to suck them. An astringent solution of port wine and water, is generally recommended to wash them with frequently; after which they are to be covered by a small pledget of Goulard's cerate, which should be, however, cautiously rubbed away again, before the child be allowed to suck. Small cups of glass are also used, to prevent the clothes from rubbing upon the nipples during the cure. Their tops are perforated with a number of holes, to allow the milk to escape as soon as it is secreted.

GEN. XXVI. *ESCHARA* *.

ESCHAR.

COMBUSTURA †.

Syn. BURNING.

Q. 359. *How are Burns to be treated?*

A. The mode of treatment in Burns must

* *Eschara, Sauvagesius.*

† *Combustura, Linnaeus, Encauris, Vogelius. Ambustio, Sagarus, Blancardus.*

depend upon the extent of the injury, and the occasional causes. The pain is to be obviated as much as possible, by plunging the patient into water of the same temperature with the body, or into brandy, astringent solutions of oak bark, and saccharum saturni. Opiates are also successfully used, to relieve the pain. As soon as vesicles are formed, the liquor is to be allowed to escape, by a small puncture, to prevent the accession of the air as much as possible; but these punctures are never to be made, until the inflammation has completely subsided. When there is a loss of substance, as is often the case when the burn is occasioned by hot metallic bodies, a liniment of equal parts of linseed oil and lime-water is found to give ease. In some cases, the pain has been also relieved, by exposing the part for a short time to the action of the air. Gangrene is to be anxiously guarded against, by all the remedies recommended (Q. 7.) for the cure of inflammation. The cure of the wound, occasioned by burning, is always accelerated by covering it with soft lint, spread

over with saturnine cerate. When particles of gunpowder happen to be pushed into the cutis vera, they are to be picked out by a needle, and the small openings occasioned by them, are to be covered with simple ointment to exclude the air from them.

SPHACELUS.

Syn. SLOUGH.

Q. 360. *What is a Sphacelus?*

A. It is a complete mortification of the fluids and solids of a part, proceeding from high degrees of inflammation, whereby they lose their natural colour, and become black, soft, and of a putrid cadaverous smell (Q. 2. and 11.).

Q. 361. *How is Sphacelus to be treated?*

A. The remedies already recommended for gangrene (Q. 11.) are equally applicable here. But when a Sphacelus extends to the bone, in any of the extremities, so that the muscular

muscular parts all round it come to be completely destroyed, amputation is adviseable; but this is never to be attempted until a Sphacelus or slough begins to separate, when there is a limit put to the progress of the inflammation.

Q. 362. How is Sphacelus of the Glans Penis to be treated?

A. The diseased parts are to be removed. A circular incision is first to be made through the skin, which is then to be drawn back by the assistant. The parts are now to be removed by one stroke of the knife. The bleeding arteries, which are seldom less than six branches, are to be immediately secured, A canula of silver is to be also introduced into the urethra, and to be secured by a proper bandage, which should be tightened so as to compress a little the bleeding vessels. The tube is to be allowed to remain in the urethra, during the cure. This operation answers also when the glans is in a scirrhus state.

GEN. XXVII. *NATURALIS.*

LAGOCHEILOS.

Syn. HARE-LIP.

Q. 263. *What is a Lagocheilos?*

A. It is a division of the upper lip, commonly termed HARE-LIP. Sometimes there are two fissures, which, in some measure, prevent sucking or speaking, and is attended with a want of power to retain the saliva. The division also, in some cases, is found to extend through the bones of the palate.

Q. 364. *How is Hare-lip to be cured?*

A. By reducing the edges of the fissure to the state of a simple incised wound (Q. 295.), by removing a portion of its edges, providing the loss of substance be not so great as to prevent them from coming afterwards into contact.

Q. 365. *How is the Operation for Hare-lip performed?*

A. After the patient is put into a proper posture,

posture, the surgeon is to divide the frænum connecting the lip and gums together. Then he is to lay hold of one side of the fissure by a pair of common crooked scissars, when he is to remove a small portion of its edges. He is then to make a similar cut on the other edge of the fissure, so that the piece cut out may resemble the letter V. As soon as this is completed, the edges of the fissure are to be brought into contact, and kept in that state by the twisted suture (Q. 298.). If two fissures happen to take place at the same time, the one is to be cured before the other. Any tooth projecting and becoming unfavourable for the healing of the fissure, is to be removed. When the retraction is considerable from a great loss of substance, pieces of leather spread over with some adhesive substance, are to be applied to the cheeks, furnished with a number of ligatures, which are to be tied between the pins. When the bones of the palate separate, pieces of sponge have been recommended to be plunged into it.

HYPOS-

HYPOSPADIÆOS.

Syn. NATURAL DIVISION OF THE
URETHRA.

Q. 366. *What is an Hypospadiæos?*

A. It is a natural opening of the urethra, not at the extremity of the glans, but behind it, and below the frænum, through which the urine passes.

Q. 367. *How is Hypospadiæos to be cured?*

A. By rendering the callous edges of the orifice, through which the urine passes, raw, by removing a small portion of its edges. If the glans is imperforated, an opening is to be made from the point of the glans, by means of a trocar, drilled into the urethra. This perforation is to be carefully kept for some time open, by a canula, until a cure is completed.

ORD. II. OBSTRUCTION.

GEN. XXVIII. CONSTRICTURA.

SUFFOCATIO.

Syn. SUFFOCATION.

Q. 368. *What are the causes inducing Suffocation?*

A. Spasmodic contraction of the trachea induced by irritating substances, such as mechanical pressure from a piece of bone or flesh sticking in the top of the œsophagus; from polypi hanging in the pharynx (Q. 212.), or from enlargement of the amygdalæ (Q. 224.).

Q. 369. *How is Suffocation to be treated?*

A. When Suffocation arises from irritating substances, producing spasmodic contraction of the parts about the trachea or œsophagus, opiates are found to be attended with the best effects. When a piece of bone is fixed in the top of the œsophagus, it is to be removed by a small forceps

forceps invented for that purpose. When it is owing to polypi, the method of treatment recommended for the removal of polypi (Q. 216.), is equally applicable here. When suffocation is threatened from enlargement of the tonsils, the method of treatment recommended for their removal, is also necessary (Q. 224.). When, however, suffocation comes on of a sudden, so as to threaten immediate death, and when it does not seem to yield to any remedy, the trachea arteria is to be opened, and respiration is to be allowed to go on through the wound. This operation has been termed *Bronchotomy*.

Q. 370. *How is the operation of Bronchotomy to be performed?*

A. The patient being properly secured, a longitudinal incision is to be made an inch and a half long, on the anterior part of the trachea, beginning at the inferior part of the theroid cartilage. The sterno hyoid and theroid muscles are then to be separated. The theroid gland is to be avoided as much as possible, on account of its being
copiously

copiously supplied with considerable blood-vessels. As soon as the trachea is laid bare, all the blood vessels are to be secured in the manner already recommended (Q. 238.). Then, with a common lancet, an incision is to be made between two rings of the trachea, of such a length as to admit of a double canula, one within the other, to be introduced, of a sufficient size for allowing respiration to go on freely. When mucus seems to obstruct the canula it can be removed from time to time and cleared of it. These canulæ are to be secured by a proper bandage, to which they are fixed, and allowed to move according to the motions of the trachea. As soon as the causes inducing suffocation are removed, the wound is to be treated as already recommended (Q. 309.).

VAR. A. SUFFOCATIO SUB AQUA.

Syn. DROWNING.

Q. 371. *How are persons apparently drowned to be treated?*

A. As soon as the body is taken out of the water, it should be covered by some warm substance, as by the warm bath. Blowing air into the lungs is next to be attempted, so as to imitate respiration as much as possible, by a conical tube put into the nostrils, applying at the same time a piece of leather, or wet paper, over the mouth. Next the stomach and intestines are to be roused into action by warm liquors, such as wine passed into the stomach by a tube in the form of a male catheter. Injections are generally used to rouse the motion of the intestines. They may be thrown in by means of syringes. Other stimuli are also to be applied to the body. Externally friction is particularly recommended.

AGLU-

AGLUTITIO.

Syn. DIFFICULTY OF SWALLOWING.

Q. 372. *From whence arises the difficulty of Swallowing?*

A. From spasmodic contractions of the œsophagus, arising from irritating substances sticking in the trachea, and sometimes occurring from no evident cause. Difficulty of swallowing may also arise from the same mechanical causes with those inducing suffocation (Q. 368.).

Q. 373. *How is Aglutitio to be treated?*

A. When Aglutitio arises from spasmodic affections of the œsophagus, the same remedies, recommended for spasmodic affections of the trachea, are equally applicable here. But when the affection arises from sharp pointed bodies sticking in the œsophagus, a cure can only be expected by a removal of them. When this cannot be done by the exertion of vomiting, and when it lies so far back in the œsophagus,

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that

that it cannot be extracted, so that the patient is in danger of suffering from want of nourishment being thrown into the system, an opening is to be made into the œsophagus. This operation has been termed *Œsophagotomy*.

Q. 374. How is the operation for Œsophagotomy performed?

A. This operation can never be attempted, but in cases of the utmost danger, as it is attended with a great deal of hazard, from the deepness of the œsophagus, from its being surrounded with a considerable number of great blood vessels. It is executed by making an incision, as recommended for bronchotomy (*Q. 370.*), until the trachea is brought in view; an assistant is then to pull it gradually aside, by means of a hook, while another assistant, with a hook, pulls the muscles on the opposite side. If any considerable vessel springs, it is immediately to be secured. The œsophagus is then to be opened, and whatever substance is found fixed in the passage, is to be removed. The after treatment of
the

the wound requires the greatest attention. The patient should live for some time on fluid food, and by nourishing injections of broth by the anus. The head is to be kept in a steady position during the cure.

DYSECŒA*.

Syn. DEAFNESS.

Q. 375. *What is a Dysecœa?*

A. It is a complete deafness, or a total want of hearing, occasioned by obstruction of the Eustachian tubes†, from pressure of tumours‡, such as polypi§; or enlargement of the amygdalæ||. Extraneous bodies fixed in the meatus auditorius externus, particularly polypi, preternatural secretions of wax, a small skin covering the

* Dysecœa, *Sagarus, Linnæus, Sauvagesius, Vogelius.*

† Dysecœa a tuba obstructa, *Morgagnius.* Cophosis a tuba, *Haller.*

‡ Dysecœa a tumore palati tubas obstruente, *Tullpus.*

§ A polypo tubæ, *Valsalva.*

|| Dysecœa ab angina tubis obstructis, *Boerhave.* Dysecœa a Catarrho, *Haller.*

meatus externus, and mal-conformation of the external ear, are also found to be causes of deafness.

Q. 376. *How is Deafness to be treated?*

A. When the affection arises from the pressure of tumours upon the Eustachian tube, they are to be removed, as recommended (Q. 219.), by ligature. When deafness arises from extraneous bodies being pushed into the meatus, if they happen to be of a round nature, they may be turned out by a probe, after dropping some oil into the ear, which effectually removes insects should they happen to creep into it. When any substance is introduced, that swells by moisture, as a pea, they are to be broken by means of a small forceps, and extracted piece-meal. Excrescences of the meatus auditorius are to be removed, as already recommended for polypi (Q. 219.) in the ear. When deafness is occasioned by extraordinary secretions of wax, acquiring a solid consistence, the wax is to be softened, and washed out by injections of warm water. When deafness arises from
a thin

a thin membrane covering the external meatus it is easily divided. When deafness arises from a mal-conformation of the external ear, different instruments are recommended to collect sound.

ISCHURIA*.

STOPPAGE OF URINE.

Q. 377. *What is Ischuria?*

A. It is a suppression of urine, complete or partial, attended either with or without pain, and arising from a variety of causes.

Q. 378. *What are the Causes of Ischuria?*

A. Ischuria may arise from inflammation of the neck of the bladder, produced by the irritation of calculi †, from spasmodic stricture of the prostrate gland, and neck of the bladder §; from schirrosities of the

* Ischuria, *Sauvagesius, Sagarus, Linnæus, Vogelius, Culenus.*

† Ischuria Cystolithica, *Tulpius.*

§ Ischuria Cystospastica, *Mercatorius.*

prostrate gland; from obstructions of the urethra; from caruncles *; from adhesions of the sides of the urethra, by inflammation, or cicatrices of old sores; from the mechanical pressure of the uterus, in the last months of pregnancy †, from tumours in the perineum ‡ vagina, as polypi, prolapsed uterus, or enlargement of the corpus spongiosum of the penis itself, pressing the sides of the urethra together §. Ischuria may also arise from a loss of tone in the body of the bladder, so as to render it incapable of contracting itself ||, and from stones impacted in the urethra ¶.

Q. 379. *How is Suppression of Urine to be treated?*

A. When the affection arises from an

* Ischuria Carunculosa, *Lusitan.*

† Ischuria Urethritica, *Hildanus.* Ischuria a Gravido, *Nordman.*

‡ Ischuria Perinealis, *Galenus.*

§ Ischuriaa Tumoribus distenta, *Gaubius.*

|| Ischuria cystoplegica, *Linnaeus.*

¶ Ischuria Urethrolithica, *Schneid.*

inflammatory

inflammatory state of the neck of the bladder, the antiphlogistic regimen becomes necessary. Blood is to be discharged freely. Opiates and injections of warm water are to be thrown up into the rectum, and the patient is to be plunged afterwards into the warm bath; particularly when the pain from the inflammation is so considerable, as to produce spasmodic constriction of the neck of the bladder. When the affection arises from scirrhusities of the prostate gland, the methods already recommended (Q. 200.), can only be attempted. When suppression of urine arises from inflammation of the urethra, an attempt should be made either to discontinue it immediately or bring it into a state of suppuration, and the pus discharged as soon as formed. Bougies should at the same time be used which act entirely mechanically. After they are rubbed over with some oil, they are to be introduced into the urethra to prevent adhesions of it from taking place, and removing the stricture previously occasioned by the inflammation. They are to be introduced into the urethra, until a resistance is met with. When caruncles are

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formed,

formed, they are also of service. When an introduction of them cannot be effected to a sufficient length, one with a smaller point is to be used, a day, at least, after the introduction of the first has failed. They are not to be allowed to remain long at first, particularly when they are attended with much pain. They are to be kept in the urethra by means of a tape, surrounding the body, to prevent their slipping into the bladder. When ischuria arises from the pressure of the uterus, in the latter stages of pregnancy, change of posture may have some effect. When from polypi it is to be treated as recommended (Q. 218.) already for polypi of the uterus; and when from prolapsus of the uterus, it is to be treated (Q. 154.) by reducing it. When from a want of tone in the body of the bladder itself, the urine is to be removed from time to time by the catheter, until such remedies are applied as will recover the tone of the system.

Q. 380. *How is the Urine extracted by the Catheter?*

A. The patient is to be laid in a proper posture, with the thighs and shoulders a little elevated, so as to relax the muscles of the abdomen. The surgeon is to stand on the left side of the patient, with a catheter of a proper size and curvature, brought to the temperature of heat of the human body and besmeared all over with bland oil. He then lays hold of the penis with his left hand, while, with his right he introduces the catheter, with its concave side towards the abdomen. He is now with his left hand to draw the penis gently forward on the catheter, until it easily passes into the bladder. If any difficulty occurs about the prostate gland, the finger has been advised to be introduced into the anus, so as to elevate the point of the catheter; the handle of the instrument being, however, depressed, answers better. As soon as the catheter has got within the bladder, the urine is to be allowed to run off,

off, and then the instrument is to be removed.

Q. 381. When from several circumstances the introduction of the Catheter cannot be effected, how is the Case to be treated?

A. When alarming symptoms are produced from retention of the urine alone, the introduction of the catheter failing, an opening is to be made into the bladder. It may be punctured above the ossa pubis, when the bladder is in a very distended state. A trocar of about an inch and a half long, may be at once introduced, through the integuments, about one inch and a half above the ossa pubis, into the body of the bladder. The flillete being removed, the urine is allowed to flow freely through the canula, which is to be secured to the body, by means of a bandage. But there are objections to this method, that the bladder is suspended for a long time on the canula, whereby its tone is destroyed, and that if it happens to slip off the canula, the operation must be repeated,

peated, and the urine must be effused in the surrounding cellular substance. The bladder has also been recommended to be punctured from the perineum, by making an incision one inch and a half long, and at some little distance from the rapha perinei. The surgeon is then to introduce a trocar into the bladder, a little distant from the prostate gland, the point of the instrument is then to be directed upwards, to avoid wounding the vasa deferentia or the vesiculæ feminales. As soon as the urine begins to flow through a groove formed in the stillete, the stillete is to be withdrawn and the canula allowed to remain; but it is to be removed from time to time to prevent any concretions from forming on the end of it. The bladder has been recommended to be punctured from the rectum, but this can, in no case, be with propriety attempted. The bladder of the female has been recommended to be punctured from the vagina, where the fluctuation of the bladder can be easily felt by the finger. Wounds of the vagina do not heal readily. Therefore the trocar
should

should be introduced on the outside of the nymphe, parallel to the urethra.

Q. 382. *What are the Causes tending to the formation of Calculi in the Bladder of Urine?*

A. Variety of causes have been assigned, such as a decomposition of a superabundant quantity of earthy matter, from the blood, by means of a sedentary life. This theory is abundantly hypothetical, for it has not yet been sufficiently proved, that a superabundant quantity of earthy matter exists at one time, more than at another, nor that a decomposition of it takes place by means of a sedentary life, because the most active, laborious, and industrious are often found to be affected with calculi. Certain articles of diet, containing a greater quantity of earthy matter than others, has been given as a cause of calculi. This theory is equally superficial, because it cannot be proved that the lacteals take up this earthy matter in greater quantities than usual, and allowing them to do so, it is highly improbable, that it can pass in a composed state from

from the blood, through the fine secreting vessels of the kidney. Several other theories have been advanced, equally frivolous. The most probable cause yet discovered, seems to be a certain state or change of the vessels of the kidney, which form the urine, possessing properties different from any yet discovered in the blood, before it has passed through the kidneys. That a peculiar action of the kidney is capable of forming urine, predisposed to the formation of calculi, is evident from the *saccharum urini* formed in cases of diabetes.

Q. 383. *What are the diagnostic symptoms of Calculus in the Bladder of Urine?*

A. Upon the patient's using any exercise, particularly riding on horseback, a dull uneasy sensation is felt about the neck of the bladder, with a corresponding sensation in the glans penis, which by degrees become more considerable, and more frequent, especially on voiding the urine, to which the patient has frequently a strong desire, but cannot void it, except in small quantities. Sometimes it comes only by drops,
1 while

while at other times it comes in a full stream but is suddenly stopped. The patient, upon this occurring, finds nothing relieves him so much as change of posture. The urine is sometimes limpid, but for the most part a quantity of mucus is discharged along with it. Sometimes it is tinged with blood, especially after riding on horseback, or after any other violent exertion. When, at the same time, small pieces of stone are often discharged along with the urine. The strongest mark of calculus is discovered, however, by an operation termed *Sound-
ing*. It is executed, by introducing an instrument of the hardest materials, finely polished, in the same manner as recommended for introduction of the catheter (Q. 380.). As soon as this instrument enters the bladder, if it happens to touch the stone, a tremulous motion is communicated to the fingers of the operator. A great deal of care is requisite here, because a few particles of sand will occasion a tremulous noise. When the stone is not discovered by the sound, the instrument is to be turned in various directions, and the surgeon is to
introduce

introduce his finger into the anus, and to raise the undermost part of the bladder against the sound. The body is always to be turned in various directions, so that a stone may be discovered easily in this manner, providing it is not contained in a cyst. After the surgeon has explored for it for some time, and has, however, failed to discover it, the instrument is to be withdrawn, and a second attempt is to be made next day.

Q. 384. How is the Stone to be removed from the Bladder?

A. Various lithontriptics have been recommended, with a view to dissolve the stone within the bladder. Such as lime water, caustic alkali, &c. Though these have considerable effect in dissolving the stone out of the body, yet they undergo the greatest change in the course of the circulation. To obviate this, it has been recommended to throw substances into the bladder by the urethra. But this is not attended with any manifest effect, and is found to injure the bladder materially, particularly

particularly the sphincter at the neck of the bladder. The only proper method of removing stones out of the bladder, is by means of a surgical operation. Several methods have been recommended for executing this; two of which only deserve attention. The one is excited by cutting over the ossa pubis into the body of the bladder, from whence it has been called the *High Operation for Lithotomy*, and the other is executed by cutting below the pubis, beside the urethra in the perineum, from which it has been termed the *Lateral Operation for Lithotomy*. Both of them have been used for a considerable time, and experience alone has at last decided in favour of the latter. It is said, that the urine, by the high method of operating, passed from the wound in the bladder into the cellular substance, among the muscles and integuments of the abdomen, where it formed sinuses, and that the bowels protrude through the external wound, which is difficult of healing from the urine rendering it callous.

Q. 385. *How is the High Operation for Lithotomy performed?*

A. In performing this operation, the bladder must be always in a distended state, so as to make it rise above the ossa pubis. The patient is therefore to drink plentifully of mild and diluent liquors, previous to the operation, and to retain his urine as much as possible. He is then to be laid in a horizontal posture, having the head a little lower than the pelvis. The surgeon is now to make an incision on one side of the linea alba, four inches long, and down to the symphysis pubis. Both the pyramidales muscles are then to be separated; then the bladder is to be cautiously punctured, and an opening made into it large enough to admit of the finger being introduced, which acts now as a directory for the knife to enlarge the opening, so as to admit of the calculi being extracted, which may be easily laid hold of, either by the finger, or by a forceps invented for that purpose. The integuments are to be immediately brought into contact, upon the calculi being removed,

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moved, and are then to be retained by the twisted future (Q. 298.).

Q. 386. *How is the Lateral Operation for Lithotomy to be executed?*

A. After introducing a sound, or staff with a groove, in the same manner, and with the same precautions, as recommended for the introduction of the catheter (Q. 380.), the thighs of the patient are to be secured by assistants. The surgeon is then to place himself between the patient and the window. He is next, with one stroke of the knife, to make an incision at least four inches long, running in the direction between the crus penis and bulb of the urethra; the transversales perinei, and levator ani muscles being divided, the surgeon is to search for the groove of the staff, which he soon discovers, through the membranous part of the urethra. He is then to cut with a common scalpel, upon the groove of the staff, the membranous part of the urethra, so as to admit the beak of an instrument, termed a *gorget*, to be lodged in it. The surgeon is now to
take

take the handle of the staff from the assistant, and raising it a little with his left hand, while, with his right, he pushes forward the gorget, through the prostate gland, into the bladder. The staff is then to be immediately removed. The stone is now to be laid hold of, if possible, when the finger is to be introduced, to discover if it is properly fixed in the forceps. The surgeon then gradually extracts it, moving the forceps in the direction of the wound. When the stone happens to be so large, that it cannot be extracted by the incision, nor even through the bones of the pelvis, it is to be broken, when the greatest attention is necessary, in order to remove all the fragments, which ought to be washed out by tepid water and milk, injected through the wound. After securing all the vessels, the patient is to be laid in a proper posture, with the body a little raised above the pelvis, to prevent any accumulation of blood from taking place in the body of the bladder, from a rupture of an artery. A piece of soft charpee is to be inserted between the lips of the wound, and the dressings

Y 2

dressings are to be removed often. Ardent spirits may be rubbed upon the parts, to prevent excoriation from taking place. The patient generally upon being laid in bed, and an opiate given him, falls asleep. But in the course of a few hours, pain and tension of the abdomen is felt, which gradually increasing, is attended, at last, with the symptoms of pyrexia. In such cases, warm fomentations are to be applied to the region of the abdomen, and opiate injections are to be given by the anus, as the affection seems to be of a spasmodic nature.

Q. 387. What Prognosis can be given of the Lateral Operations of Lithotomy?

A. A considerable degree of danger always attends the operation. Men in their full vigour of life are in greater danger from it, than either young children, or old men whose constitutions are not broken. When ulceration has taken place in the body of the bladder itself, the chance of success is less. The danger is always increased by the inflammatory symptoms succeeding

succeeding the operation (Q. 386.); particularly when they proceed without any intermission, notwithstanding every attempt to prevent them; and when the wound looks sloughy (Q. 360.) the danger is very considerable. The time in which a complete cicatrix is formed, varies in different persons. The age and habit of body of the patient must in a great measure determine this. Sometimes a complete cicatrix is formed in the course of a month, while, at other times, it takes three months before it occurs.

Q. 388. *How is the Operation for Lithotomy performed on the Female?*

A. A grooved staff, or sound, is to be introduced into the urethra, and pushed as far forward as the bladder. The beak of the gorget is to be introduced into the groove of the staff, when it is to be carried forward into the bladder, dividing the urethra its whole course. The other steps of the operation are exactly similar to that recommended for the male.

Q. 389. *When a Stone is impacted in the Pelvis of the Kidney, ought an Operation to be attempted?*

A. As the presence of stone in the kidneys cannot be accurately ascertained, the symptoms alone not being sufficient to give an essential diagnosis, the kidney also lying so deep and covered with a considerable quantity of muscle, an operation should seldom or never be attempted. For although all these objections were removed, the kidney is so made up of considerable blood vessels, so as to render an incision into it impracticable. When the kidney, however, is in a dropical state, and very much enlarged, there may remain some probability of success from an operation. But the danger is greater than any advantage that can be procured from it.

Q. 390. *How are Stones impacted in the Urethra to be removed?*

A. Stones passing off by the urine may stop in the urethra, and create a great deal
1 of

of pain; particularly when they are of an angular shape. Sometimes they burst the urethra and occasion a discharge of urine into the cellular substance. Several methods have been recommended for the removal of calculi; such as pushing them forward with the fingers; but it is plain, that every effort of this kind is attended with excruciating pain, and must aggravate the complaint by producing a spastic constriction about the stone. After every trial of this kind has failed and that neither diluents, opiates, injections of bland oil, nor any other antispasmodics have effect, an incision is to be made directly over the stone, which is to be then turned out, the skin being drawn past its natural situation, previous to the incision, being allowed to return again to its natural state, covers the wound in the urethra, where sometimes a cure is obtained by the first intention.

GEN. XXIX. *VERSICOLOR.*

CATARACTA *.

Q. 391. *What is a Cataract?*

A. It is an opacity of the crystalline lens, or its capsule, so as to prevent the rays of light from falling upon the retina arising from obstruction of the vessels of the lens, or from external violence.

Q. 392. *What are the Diagnostic Symptoms of Cataract?*

A. The sight at first seems weaker than usual; the patient imagines some dust has got into his eyes. This diminution of sight gradually advances, until at last the patient can scarcely distinguish different colours. A total blindness then ensues. On inspecting the lens, it is found to be of a dusky colour, or brown similar to amber. Sometimes a small white spot is observed;

* Cataracta, Cullenus, Vogelius, Linnaeus. Suffusio, Platner. Glaucoma, Sharp, Plenck. Glaucofi, Hippocrates. Hypochyris, Galenus.

at other times it is entirely white, and sometimes of a pearl colour. The disease sometimes comes on rapidly, while at other times, its progress is slow and gradual. During the whole course of the disease, the pupils contract on the impression of light, and little pain occurs from the disease. It is easily distinguished from the gutta serena, from the pupils in that disease being never affected with light, and from no opacity being observed, through the pupil, into the lens. It is easily distinguished from hypopyon and staphyloma, from no pain occurring, as is the case in the beginning of these affections. It is not easy, however, to determine, whether the opacity subsists in the capsule, or in the lens.

Q. 393. *How is the Cataract to be cured?*

A. Mercurial preparations have been in some cases attended with the best effects, in removing the opacity, when given internally. But after they have been used for some time, and no success ensues, the cure has been attempted by surgical operation. Two methods for executing this have been

been equally strongly recommended. The first of these is to remove the lens from its capsule, so as to allow the rays of light to fall upon the retina, and then to lodge it in the bottom of the vitreous humour, where it is supposed to dissolve in course of time. This method of operating has been termed *couching*. The second method is to extract the lens from its capsule, through the pupil, by an incision made into the cornea. This operation has been termed *extraction* of the cataract.

Q. 394. *At what time can the Operation for Couching, or Extraction, be with propriety attempted?*

A. When the opacity is so considerable, as to prevent the patient from following his ordinary occupation. An operation can never with propriety be attempted, when one eye is only affected. But, when the case is otherwise, the operation may at any time be attempted, providing the eye in other respects is sound at its bottom,
the

the pupil has power of contraction and dilatation, and the cornea is transparent.

Q. 395. *How is the Operation for Couching of the Cataract executed?*

A. The patient being properly seated with his face towards the window, the surgeon is to sit before him; he is to be provided with proper assistants; one for supporting the head and the other for securing the arms. The eye is now to be fixed, by a proper speculum, in such a manner, as to allow the whole of the transparent cornea, and one eighth of the tunica sclerotica, to protrude through it. The arm of the surgeon being now properly supported on a table placed beside him, he is then to take the couching needle into his right hand, when the operation is performed on the left eye, in the same manner as he does a writing pen. He is then to bear the little finger and ring finger on the cheek of the patient, and to carry the point of the instrument along the external canthus of the eye, into the sclerotic coat, which he
is

is to puncture one tenth of an inch behind the iris; and now he plunges the instrument into the capsule of the lens, which he must endeavour to disengage, so as to carry the lens, on the point of the instrument, into the bottom of the vitreous humour. As soon as this is effected, and the cataract is seen to disappear through the pupil, the instrument is to be immediately removed, and the eye shut. The patient is to be then laid in bed, in a dark chamber, and a strict antiphlogistic regimen enjoined, to obviate the inflammation that generally succeeds. In four or five days, the success of the operation may be known. Sometimes the patient grows gradually better after the operation, while in others immediate success is obtained. If the lens still rises from the bottom of the vitreous humour into its natural situation, it is to be depressed a second time, after the inflammation induced by the first attempt has subsided.

Q. 396. *How is the operation for extraction of the Cataract performed?*

A. Both surgeon and patient being seated, the eye properly secured by a speculum, and the surgeon laying hold of the knife, as recommended (Q. 395.) for couching, he is to introduce the point of it, which ought to be of a conical form, into the lucid cornea, one sixteenth part of an inch distant from the iris, when he is to carry it across the pupil into the opposite side of the eye, through which he is to push it nearly one fourth part of an inch. The pressure from the speculum is then to be lessened, to prevent the aqueous humour from being entirely diffused. A semilunar cut is now to be made in the superior part of the cornea, the flap of which is to be raised by a blunt probe, which is then to be cautiously passed through the pupil, so as to scratch a hole in the capsule of the lens, to admit of the lens escaping. A moderate degree of pressure is now necessary with the speculum, so as to make the lens pass through the pupil. When the
lens

lens stops in the anterior chamber of the eye, enlarging the opening in the cornea is necessary, or a scoop may be used for its removal. When the opacity is situated in the capsule, a removal of it, without discharging the vitreous humour becomes impossible. The after treatment of the operation for extraction of the lens, is exactly the same as recommended for couching (Q. 395.).

Q. 397. *Whether should the operation of Couching or Extraction, have the preference?*

A. The objections to the operation for couching, are, that it always fails, when the lens is found in a dissolved state; that, by allowing the matter of the cataract to mix with the vitreous humour, a permanent blindness is the consequence. The operation for couching also fails, from the cataract arising again into its natural situation. When the opacity is in the capsule, couching will not remove it. The objections against the operation for extraction, are, that the vitreous humour is apt to escape

escape along with the lens. The cicatrix from the wound in the cornea renders it so opaque, as to prevent the rays of light to pass through it. The lens is said to be often so very large, as materially to injure the iris in passing through the pupil. The operation for extraction should, however, be preferred before the other; because the one is a radical cure, while the other is only a palliative. When the operation of extraction is properly performed, the vitreous humour need never escape; besides, the chance of the lens dissolving in the vitreous humour, is very improbable.

LEUCOMA.

Syn. ALBUGO NUBICULA.

Q. 398. *What is a Leucoma?*

A. It is a speck or film, formed on the transparent cornea, produced by inflammation, occasioning an effusion between the lamellæ of the cornea, and rendering it

it so opaque, as to prevent the rays of light from falling upon the retina.

Q. 399. *How are Specks or Films of the Eyes to be removed?*

A. The remedies recommended for inflammation (Q. 7.) are also proper in inflammation of the eyes. When any film or speck is elevated above the surface of the cornea, escharotics or the knife are generally recommended; but these are improper, when an effusion takes place betwixt the lamellæ of the cornea. In such cases, therefore, remedies tending to promote absorption most powerfully, such as mercury, are to be used. Sometimes it is impossible to confine escharotics to the part affected. In such cases the powder used as an escharotic is to be inserted within the eye-lids; by the motion of the eye-ball it can be spread over the whole surface of the eye, consequently to the part affected.

GEN. XXX. IMPERFORATUS.

IMPERFORATUS ANUS.

Syn. IMPERFORATED ANUS.

Q. 400. *How is Imperforated Anus to be treated?*

A. An incision is to be cautiously made in the natural direction of the anus, for one or two inches. If no meconium appear, a trocar is to be cautiously drilled forward into the direction of the rectum. If the surgeon is so fortunate as to penetrate into the rectum, meconium is generally discharged. Sometimes the intestinum rectum terminates in the bladder: even in such a case the operation is to be attempted. The greatest caution is necessary to keep the opening, made into the rectum, open by proper tents of lint, to prevent its sides from growing together.

IMPERFORATUS MEATUS AUDI-
TORIUS.

IMPERFORATED EAR.

Q. 401. *How is Imperforated Meatus Auditorius to be treated?*

A. A thin membrane only covers the passage into the ear. It is easily divided by a simple incision. The accretion of its sides may be obviated by dossils of lint inserted between the edges of the wound, until it is rendered callous.

CARENS ORIS.

IMPERFORATED MOUTH.

Q. 402. *How is Imperforated Mouth to be treated?*

A. In the same manner, and with the same precaution, as recommended for an imperforated meatus auditorius (Q. 401.).

NASUS

NASUS IMPERFORATUS.

IMPERFORATED NOSTRIL.

Q. 403. *How are Imperforated Nostrils to be treated?*

A. In the same manner, and with the same precaution, as recommended for imperforated meatus auditorius (Q. 401.).

HYMEN IMPERFORATUM.

IMPERFORATED HYMEN.

Q. 404. *How is Imperforated Hymen to be treated?*

A. No difference of treatment is here necessary from that recommended for imperforated meatus auditorius (Q. 401.).

DENTITIO.

Syn. TEETHING.

Q. 405. *What are the diagnostic symptoms of Teething?*

A. The gums are inflamed, and a degree of pyrexia occurs. Sometimes convulsive affections take place. The discharge of saliva is increased in some cases; while in others, it is diminished. Troublesome diarrhœa often takes place, while at other times extreme degrees of costiveness occur.

Q. 406. *How is Dentition to be relieved?*

A. After the warm bath and opiates have been persisted in for some time, to no purpose, and that the pain is considerable, from the tearing of the gum by the tooth, an incision is to be made in a crucial form over the tooth.

GEN. XXXI. CONCRETIO.

ANCYLOBLEPHARON *.

Syn. ADHESION OF THE EYE-LIDS.

Q. 407. *How is Adhesion of the Eye-lids to be treated?*

A. Adhesion of the eye-lids in consequence of inflammation, may be separated by pulling them asunder by the fingers, if they adhere slightly. But when a firm adhesion has taken place, they are to be divided cautiously by the knife, and afterwards to be kept from adhering together by dressings insinuated between the lips of the wound until it is rendered callous.

SYNIZESIS †.

Syn. OBSTRUCTION OF THE PUPIL BY CONCRETION.

Q. 408. *How is Synizesis to be treated?*

A. Excision is to be made cautiously so

* Ancyloblepharon, *Vogelius*. † Synizesis, *Vogelius*.

as to render the uvea pervious to the rays of light. This is to be executed by the point of a couching needle, introduced in the same manner and with the same precaution as recommended for couching.

ADHESIO AB URETHRITICA.

Syn. ADHESIONS OF THE URRETHRA
FROM INFLAMMATION.

Q. 409. *How are Adhesions of the Urethra to be treated?*

A. The method of treatment is exactly the same as recommended for ischuria. See Q. 379.

ANCYLOGLOSSUM*.

Q. 410. *What is Ancyloglossum, and how is it to be treated?*

A. It is a concretion of the tongue to the parts below, preventing speaking, sucking, and swallowing; and sometimes is the con-

* Ancyloglossum, *Vogelius*.

sequence of inflammation. The affection is removed by dividing the frenum of the tongue cautiously by a small pair of scissars guarded at the point by a slit piece of silver.

DACTYLION*.

Syn. CONCRETION OF THE FINGERS;
WEBBING.

Q. 411. *How is Webbing to be cured?*

A. By simple incision and keeping the parts at a distance from one another, until a cure is completed.

* Dactylion, *Vogelius*.

ORD. III. DISTORTIO.

GEN. XXXII. MUSCULOSA.

Q. 412. *How is Distortion from contracted Muscles to be treated?*

A. A cure can be only expected from gradual extension, which should be executed by proper instruments, applying emollients at the same time to the part, particularly animal fat, &c.

CAPUT OBSTIPUM*.

Syn. WRY NECK.

Q. 413. *How is Wry Neck to be treated?*

A. When the Wry Neck is owing to a contraction of the mastoid muscle, dividing the muscle by gentle strokes is said to effect a cure. The same method may be also

* Caput Obstipum, *Vogelius*. Obstipitas, *Sagarus*, *Sauvagesius*.

used,

used, when the skin is contracted about the neck by burning, and the head is to be kept in a proper posture during the cure, until new granulations form, and fill up the space between the divided ends of the muscle. When the wry neck is occasioned by a mal-conformation of the bones of the neck, a cure becomes impossible.

STRABISMUS.

Syn. SQUINTING.

Q. 414. *How is Squinting to be treated?*

A. When squinting is occasioned by a contraction of some of the oblique muscles of the eye, particularly the inferior, it may in some measure be obviated by dividing the contracted muscle.

GEN. XXXIII. OSSIFICA.

VACILLATIO*.

Q. 415. *What is a Vacillatio?*

A. It is a derangement of the teeth,

* Labarium, *Linnaeus*,

occasioned by a want of room in the jaw-bone for allowing the whole of them to appear in a circle, generally occurring before the first set have entirely disappeared.

Q. 416. *How are Derangements of the Teeth to be treated?*

A. The Teeth that ought to have been shed, are to be pulled out, in order to make room for the second set: and when the second set are so large as not to find room in the jaw-bone, they are to be pulled out also, so as to make room for the rest to come in a circle. When the teeth happen to be deranged by accidents, a small plate of silver, perforated with a number of small holes, is to be placed on four of the opposite teeth: a piece of wire doubled, is to be passed through the holes, and the doubling of it is to be thrown over the tooth intended to be drawn into the circle. Both ends of the circle are, then, to be pulled tightly through the holes, and secured by a pair of pliers. When distortions of the teeth are occasioned by their being loose, they are to be

be fixed by means of a ligature to the neighbouring sound teeth. When they are loose from old age little can be done to fix them. Tartarous incrustations of the teeth may also occasion a derangement of them. Acids, in such cases, have been recommended to dissolve such concretions, but they seem to injure the teeth materially. The surgeon, therefore, in such cases, is to press, with the thumb wrapped in a piece of linen, upon the tooth intended to be cleaned of such tartarous concretions; and then he is cautiously to scrape the incrustation off; avoiding, at the same time, the root of the tooth, as much as possible. All the broken fragments of the incrustation are to be cautiously removed, by a sponge, to prevent irritating the gums.

LORDOSIS*.

Syn. CLUB FOOT.

Q. 417. *What is Lordosis?*

A. When the bones of the leg are

* Lordosis, *Vogelius*, *Sauvagesius*, *Linnaeus*, *Sagarus*.

bended in any direction, it has been commonly termed *Lardosis*. When they happen, however, to be bended outwards, the disease has been termed *Valgus*; and when they are bended inwards, it has got the denomination of *Varus*. All these chiefly arise from original malconformation; such as the accidental position of the patient before birth. They may arise also from rickets.

Q. 418. *How is Lordosis to be treated?*

A. By using moderate pressure, on the convex side of the bones, so as to bring them at last into their natural situation.

GIBBOSITAS*.

Syn. HUMP BACK.

Q. 419. *What are the Causes of Distortion of the Spine?*

A. It is frequently the consequence of rickets, but may be also occasioned by a lateral attitude, too long continued, impeding the growth, and altering the shape

* *Gibbositas, Sauvagesius, Sagarus.*

of the vertebræ, by which means the bowels are often injured, and degrees of paralysis produced.

Q. 420. *How is a Cure of Hump Back to be treated?*

A. By endeavouring, as much as possible, to avoid that posture of the body, occasioning the distortion, and by diminishing the weight of the parts above the spine, by use of the machinery: such as that of Jones, &c.

DISTORTIO OSSIIUM PELVIS.

DISTORTION OF THE BONES OF THE PELVIS.

Q. 421. *When the Distortion of the Bones of the Pelvis is so considerable as to render the Transmission of a living Child impossible, how is the case to be treated?*

A. The child is either to be extracted,
by

by dividing the symphysis pubis, by diminishing its size, by excision, or by extracting it through the integuments of the abdomen and a corresponding incision into the uterus. The first of these methods can never be performed, when there is an impossibility of saving the child. The latter can never be performed with propriety, but when the pelvis is so much contracted, as not to admit of a delivery any other way. The second method is performed with propriety, to save the mother's life, when every method of effecting the delivery of a living child, has failed.

Q. 422. *How is the Symphysis Pubis divided?*

A. The patient is to be laid in a horizontal posture; an incision is to be then made longitudinally, through the integuments, extending four inches above the ossa pubis; then the cartilage is to be cautiously divided, to avoid wounding the neck of the bladder. The pains occurring generally
produce

produce a sufficient separation of the bones; but if this is not the case, the bones may be separated about one inch and a half: when the diameter of the pelvis is enlarged about half an inch, the bones cannot be farther separated without injuring the posterior ligaments, and the joinings of the os sacrum, most materially. The greatest attention is necessary in the after treatment of the wound.

Q. 423. *How is the Size of the Child to be diminished, so as to favour the extraction?*

A. A perforation is to be made in the most accessible part of the head, sufficiently large for allowing the brain to pass out. The labour pains, now contracting the head, make the bones overlope one another, so that a delivery is easily effected.

Q. 424. *How is the Cæsarian Operation performed?*

A. The patient being placed in an horizontal position, a longitudinal incision is to be made on one side of the linea alba, be-

ginning two inches above the umbilicus, and continuing it to the length of six inches: a corresponding incision is next to be made into the uterus, of a sufficient size for admitting of the child and placenta being extracted; which is to be done as soon as possible, to allow the uterus to contract, and to prevent the hemorrhagy. Some of the considerable arteries may be secured by ligatures; which may be allowed to hang out, by the wound in the integuments; the edges of which are to be brought into contact, and retained by the twisted future (Q. 298.). The os internum may be kept for some time open, to allow any effused blood to run off.

F I N I S.

I N D E X.

The FIGURES refer to the QUESTIONS.

- A**BDOMEN, Wounds of, 312
 Bandage for, 74
 Paracentesis of, *ibid.*
 Abscess, what, 47
 Suppuration of, how excited, 10
 Mode of Treatment, 48
 Degree of Inflammation necessary for the Cure,
 ibid.
 of the Gums, 21
 in the Thorax and Lungs, diagnosis, 66
 of the Lungs, how treated, 50
 of the Liver, diagnosis of, 51
 how treated, 52
 of the Eye-ball, 58, 60
 Lumbar, diagnosis of, 53
 Mode of treatment, 54
 Antri Maxillaris, cause of, 56
 Diagnosis, 55
 Cure of, 57
 Adhesion of the Fingers and Toes, 411
 of the Urethra by Inflammation, 407.
 A a *Ægilops*

I N D E X.

- Ægilops danger from, whence arising, 251
 - cause of, *ibid.*
 - Treatment of, 253
- Aglutitio, what, 372
 - How treated, 373
- Air injurious to Wounds, 296
- Airy Tumours, 41, 45
- Albuginea Tunica, Scarification of, 31
- Amputation, choice of place, 320
 - of the Arm at the Shoulder Joint, 325
 - of the Toes and Fingers, 325
 - above the Knee, 321
 - Leg and foot, 323
 - Hip Joint with a flap, 324
 - of the Penis, 362
 - of the Tongue, 202
 - after treatment of, in general, 322
- Anafarca, what, 75
 - cause of, 76
 - cure of, 77
 - of the Scrotum, 85
 - of the Spermatic Cord, cause, 90
 - Diagnosis, 91
 - Cure of, 92
- Ankle, Luxated in different Directions, 189
 - Treatment of, 190
- Ancyloblepharon, how removed, 407
- Ancyloglossum, 410
- Aneurism, what, 104
 - termination of, 105
 - cause of, 106
 - mode of treatment, 107
 - operation for, 108
 - Prognosis of, 109
 - diffused, what, 110
 - cause of, 111
 - cure of, 112
 - varicose, what, 113
 - mode of treatment, 114
- Antiphlogistic Regimen, what, 8
- Antrum Maxillare, Abscess of, 55. See Abscess
- Anus, Abscesses of, how treated, 261
 - Fistula in, 259. See Ulcer
 - imperforated, 400

Anus,

I N D E X.

- Anus, Tubercles of, 227
 - how treated, 228
 - Prolapsus of, 156. See Exania
- Aorta, Wounds of, mortal, 311
- Arm, Fracture of, 349
 - Amputation, Shoulder Joint, 325
 - Luxated, Shoulder Joint, 178. See Luxation
- Artificial Eyes, 204
 - Teeth, 280
- Arteries, Wound of, occasion Aneurism, 111
 - how secured, to prevent Hemorrhagy, 238
 - Carotid, to be secured by Ligature, 309
- Ascites, what, 70
 - Diagnosis of, 71
 - cause of, 72
 - mode of treatment, 73
 - operation for, 74
 - of the Spermatic Cord, cause, 88
 - cure, 89
- Aspera Arteria, Wounds of, 309
- Atheroma, what, 131
 - treatment of, 132
- Auditory Passage, opening of, 401
 - cleared of insects and other Bodies, 376

B

- Bark of Service in Ophthalmia, 31
- Bites of Mad Animals, 317
- Bladder punctured, in Suppression of Urine, 381
 - Stone in, cause of, 382
 - Diagnosis of, 383
 - how removed, 384
 - Operations for, 385, 386
- Bloodletting, Operation, how performed, 9
- Bleeding, Piles what, 121
- Boils, Gum, 20
- Bones, Fractures of, 327. See Fracture
 - Carious of, 274
 - causes of, 275
 - Prognosis of, 276
 - Mode of treatment, 277
- Brain, Compression of, Diagnosis, 328
 - treatment of, 329

I N D E X.

- Brain, Concussion of, Diagnosis, 328
 treatment of 333
 affections of, Prognosis in general, 334
 Inflammation of, 33. See Phrenitis
- Breast, extirpation of, 199
 Inflammation of, 15
 Cancer of, 197. See Scirrhus
- Bronchocele, what, 210
 Mode of treatment, 311
- Bronchotomy, what, 369
 how performed, 370
- Bubonocoele, 143, see Hernia
- Buboes, what, 12
 mode of treatment, 13
 whether ought to be opened, 14
- Burns, how treated, 359
 the pain in, how obviated, 359

C

- Cæsarian Operation, 424
- Calculi, Cause of, 382, see Bladder
 Cut out under the Tongue, 137
 Extraction from the Urethra, 390
 Bladder, 385, 386
- Callous Ulcers, 258, see Fistulous Ulcers
- Callosity of Fistulæ not to be removed by the knife, 262
- Cancer Occult, what, 197
 Open, ibid
 how treated, 273
 of the Lips, 203
 of the Tongue, 202
 of the Breast, 197, see Scirrhus
 of the Eyes, 204
 of the Penis, 362
 of the Testicles, 193, see Sarcocoele
 of the Breast, how extirpated, 199
- Caries of the Bones, what, 274, see Bones
- Carotid Arteries wounded, 309
- Caruncles in the Urethra, 378
- Castration, how performed, 196
- Cataracts, what, 391
 Diagnosis of, 392
 Operations for, when proper, 394

Cataracts,

I N D E X.

- Cataracts, Cure of, 393
 - Couching, operation for, 395
 - Extraction of, 396
 - Couching or Extracting, which is to be preferred, 397
- Catheter, how passed into the Bladder, 380
 - introduction of, failing, what to do, 381
- Caustic applications to the Throat used with caution, 216
 - Styptic in Hemorrhagy, 238
- Chilblains, what, 24
 - cause of, 25
 - mode of treatment, 26
- Cicatrices on the Cornea destroy Vision, 397
- Cirfocele, what, 117
 - mode of treatment, 118
- Clavicle, Luxation of, 176
- Clavus, 229
- Cleaning of the Teeth, 416
- Coccyx, Luxation of, 175
- Cohesion of the Fingers, 411
 - of the Eye-lids, 410
 - Urethra, 409
- Combustura, how treated, 359
- Concussion of the Brain, 328, see Brain
- Condyloma, what, 227
 - How treated, 228
- Contracted Muscles, 412
- Contused wound, 306
- Contusions, 355
- Convulsion from Wounds, 301, 303
- Cornea, Spots on, 298, see Leucoma
- Corns on the Feet, 229
- Coryza, what, 285
 - how treated, 286
- Couching of Cataracts, 395, see Cataracts
- Cranium, Fracture of, Diagnosis, 327
 - Trepanning of, 329
 - Prognosis from, 331
 - Depression of, 328
 - from Fluids, 330
 - Trepan not to be applied in every simple Fissure of, 332
- Crooked Spine, 419
- Crural Hernia, 148, see Hernia

Cubitus,

I N D E X.

Cubitus, Fracture of, 350
 ——— Luxation of, 180
 Cupping, what, 9
 Cynanche Tonsillaris, 17
 Cyстоcele, what, 143

D.

Dactylion, 411
 Debility cause of inflammation, 5
 Dentition difficult, 405
 how relieved, 406
 Depression of the Cranium, 328
 Dislocation, 167, see Luxation
 Distortion of the Bones of the Pelvis, 421
 of the Legs, 47
 Drawing of Teeth, 279
 Dropsy of the Abdomen, 70, see Ascites
 of the Joints, 96, see Hydarthus
 of the Scrotum, 78, see Hydrocele
 of the Thorax, 67, see Hydrothorax
 of the Ovarium, 93
 Drowned Persons, how treated, 371
 Dysœcœa, what, 375
 how treated, 376

E.

Ears, Excrescences in, 219
 Ecchymosis, what 119, see Thrombus
 Ectropium, what, 163
 how treated, 164
 Elytrocele, 153
 Elbow Joint, stiffness of obviated, 350
 Embryotomy, 423
 Empyema, what, 62
 Diagnosis of, ibid
 mode of treatment, 63
 Operation for, 64
 of both sides of the Thorax, 65
 Emphysema, what, 41
 cause of, 42
 Diagnosis of, 43
 Operation for, 44

Eneuresis,

I N D E X.

- Eneuresis, what, 288
 - how treated, 289
- Entrocele, what, 143
- Entropium, what, 165
 - mode of treatment, 166
- Epiphora, what, 286
 - how treated, 287
- Epiplocele, what, 143
- Epistaxis, 239
- Epulis, 223
- Erysipelas, 22
 - Diagnosis of, 3
 - mode of treatment, 23
- Eversion of the Eye-lids, 163
- Exania, causes of, 156
 - Cure of, 157
- Excoriation, how treated, 357,
- Exophthalmia, what, 161
 - how treated, 162
- Exomphalocoele, what, 150, see Hernia
- Exostosis, what, 231
 - how treated, 232
- Extension in Fractures, 335
 - in Luxations, 169
- Extraction of Bodies from Wounds, 297
 - of the Stone from the Bladder, 385, 386
- Eyes, wounds of, how dangerous, 315
 - Operations of, capital, 395, 396
 - Bulb of Scirrhus, 204
 - Specks on, 398
 - treatment of, 399

F.

- Fauces, Excrescences in, 212
 - expulsion of Bodies from, 374
- Femur Fracture, 351, see Fracture
 - Luxated, 183, see Luxation
 - Amputation of, 321
- Fibula, Fracture of, 354
- Ficus Condyloma, 227
- Films on the Eyes, 398
 - how treated, 399
- Fingers Luxated, 182

I N D E X.

- Fingers Fractured, 350
- Fissure of the Cranium, how treated, 332
- Fistula Lachrymalis, what, 265
 - cause of, 366
 - Prognosis of, 367
 - treatment of, 368
 - Operation for, 369
- of the Anus, 258, see Ulcer
- of the Perineum, cause of, 263
 - treatment of, 264
- Flatulent Tumours, 41, 45
- Fractures, Simple, Diagnosis, 337
 - Prognosis of, 338
 - treatment of, 339
 - want of success in the Cure, 341
 - what, 336
 - of the Fingers, 350
 - of the Carpus, ibid
 - of the Humerus, 349
 - of the Bones of the Nose, 341
 - of the Bones of the Face, 342
 - Bones of the Thorax, Diagnosis, 344
 - mode of treatment, 345
 - of the Spine, Diagnosis, 346
 - mode of treatment, 347
 - of the Thigh Bone, 351
 - want of success in the cure, 352
 - of the Tibia and Fibula, 354
 - of the Ulna and Radius, 350
 - of the Lower Jaw, 343
 - of the Patella, 353
 - of the Scapula, 348
 - compound what, 326
 - of the Bones of the Cranium, 327
- Fungus, what, 226

G

- Ganglion of the Tendons, what 100
 - how treated, 101
- Gangrene, what, 2
- Gibbositas, cause of, 419
- Gonorrhœa,

I N D E X.

- Gonorrhœa Virulenta, what, 290
 how treated, 291
 Gums, incision of in Teething, 406
 Gunshot Wounds, danger from, what, 318
 treatment of, 319

H

- Hæmorrhagy, stopped, 238
 Hæmorrhoids, blind, what, 121
 cause of, 122
 mode of treatment, 123
 Open, what, 121
 Hæmoptysis, what, 240
 Hæmatemasis, 241
 Hæmaturia, 243
 Hæmatocele Scroti, what, 124
 how treated, 125
 Pectoralis, 126
 how treated, 127
 Oculi, cause of, 128
 how treated, 129
 Articuli, 130
 Hare-lip, what, 363
 how cured, 364
 Operation for, 365
 Hernia, Diagnosis of in general, 138
 causes of, 139
 danger, from whence arising, 140
 Strangulation, of, its Symptoms, 141
 treatment of, 142
 warm applications improper, *ibid.*
 reduction of, *ibid.*
 Umbilical operation, 150
 Inguinal operation, 144
 Prognosis of, 146
 Congenita, what, 143
 Cruralis, what, 148
 operation for strangulation of, 149
 Ventralis, how treated, 147
 Ovularis, 151
 Vaginalis, 153
 Herniary Sac to be reduced unopened, 144

High

I N D E X.

- High Operation for Lithotomy, 385
- Hollowness of the Teeth filled up, 278
- Hordeolum, what, 221
- Humerus, Fracture of, 349
 - Luxations of, 178 (see Luxation)
- Hump Back, 419
 - how treated, 420
- Hydarthus, diagnosis of, 96
 - mode of treatment, 97
- Hydrocele, what, 78
 - diagnosis of, 79
 - termination of, 80
 - causes of, 81
 - mode of treatment, 82
 - radical cure of, 83
 - operation for, 83
 - prognosis of, 84
- Hydrops Sacci Herniosi, what, 86
 - Ovarii, mode of treatment, 93
 - Bursæ Mucosæ, cause of, 98
 - mode of treatment, 99
- Hydrophthalmia what, 94
 - mode of treatment, 95
- Hydrothorax, what, 67
 - Diagnosis of, 68
 - mode of treatment of, 69
- Hymen imperforatum, 414
- Hypopyon, Diagnosis of, 60
 - mode of treatment, 61
- Hypospadiæos, what, 366
 - how treated, 367
- Hypostaphile, what, 159
 - how treated, 160
- Hysterotomy, 424
- Hysteroptosis, what, 154
 - how treated, 155

I.

- Jaw Luxated, 172
 - Fractured, 343
- Incision of the Gums crucial in Dentition, 406

Incision

I N D E X.

Incision of the Cornea cause of Specks, 397

Incontinency of Urine, 288

how treated, 289

Inguinal Hernia, 143

Inflammation, cause in general, 5

method of cure, 7

Prognosis of, 6

of the Breasts, 15

of the Testicle, 16

of the Tonsils, 17

Introduction of the Catheter, 380 (see Catheter)

Intestines, wounds of, 312

Inversion of the Eye-lids, 165

Ischiatocele, what, and how treated, 152

Issues, formation of, what to attend to, 246

how formed, 247

Ischuria, what, 377

cause of, 378

how treated, 379

K.

Knee Luxated, 188

joint concretions within, 237

inflammation of, to be guarded against, 97

L.

Lacerated wounds, 305

Lachrymal Fistula, 265

Lagocheilos, what, 363 (see Hare-lip)

Lateral Operation for Lithotomy, 386

Prognosis of its success, 387

how performed in the female, 388

Leeches, bleeding with, 9

Leg, fractures of, 354

amputation of, 323

Leucoma, what, 398

how treated, 399

Lips, cancerous, 203

fissure of, 363

Lithotomy, High Operation for, 385

Lateral Operation for, 386

Lordosis, what, 417

Lordosis

I N D E X.

- Lordosis, how treated, 418
- Lungs, wounds of, diagnosis, 310
- Luxation in general, diagnosis of, 167
 - prognosis of, 168
 - cure of, 169
- of the Shoulder, its direction, 178
 - how treated, 179
- of the Arm, 180
- of the bones of the Head, 170
- of the bones of the Nose, 171
 - lower Jaw, 172
 - Head and Neck, 173
- of the Ribs, 177
- of the Clavicle, 176
- of the Metatarsi, Carpus and Fingers, 182
- of the Thigh, its direction, 183
 - how reduced, 185
 - diagnosis of, 184
- Patella, how reduced, 186
- of the Tibia and Fibula, 187
- Knee Joint, 188
- Malleoli, its direction, 189
 - treatment of, 190

M

- Machines, for extending the Arm, 173
- Mad Animals, Bite of, 317
- Mammæ, inflammation, 15
 - extirpation of, 199. See Scirrhus
- Maxillary Bone Luxated, 172
- Maſtodynia, what, 15
- Meatus Auditorius, imperforated, 401
- Meliceris, Tumours, 133
- Mercury of service in Inflammation of the Liver, 19
- Merocele, what, 148
 - how treated, 149
- Mouth, Ulcers of, 253
- Musculus Orbicularis, division of, 314

N

- Neck, crooked, operation for, 413
 - Luxated, 173

Nephro-

I N D E X.

Nephrotomy, 389
 Nerve, puncture of, 303
 Nipples chapped and sore, 358
 Nodus, what, 233
 how treated, 234
 Nose, fractured, 341
 Luxation of, 171
 Nostrils, imperforated, 403
 Polypi in, 217

O

Odontalgia Canosa, what, 278
 Œsophagus, Wounds of, 309
 Substances stopped in, 374
 Œsophagotomy, 374
 Œzema, what, 283
 how treated, 284
 Opacity of the Cornea, 398. See Leucoma.
 of the Crystalline Lens, 391
 Ophthalmia, what, 29
 cause of, 30
 mode of treatment, 31
 Bark of service in, ib.
 Os imperforatus, 401
 Ovarium, Dropsy of, 93

P

Pain in Wounds, to be obviated, 299
 in Burns, how relieved, 359
 Paraglossæ, what, 158
 Paraphymosis, what, 36
 mode of treatment, 37
 Paracentesis of the Abdomen, 74
 of the Thorax, 64
 of the Scrotum, 82
 Paronychia, what, 27
 cause of, 28
 mode of treatment, ib.
 Parotid Duct, division of, 316
 Parulus, what, 20
 how treated, 21

Patella

I N D E X.

- Patella, Fractured, 353
Luxated, 186
Bandage for, 353
Penis, Sphacelus of, 362
Amputation of, ib.
Perineum, Fistula in. See Ulcer, 263
Pernio, what, 24
cause of, 25
mode of treatment, 26
Phimosis, what, 38
how treated, 39
operation for, 40
Phlegmone, what, 1
termination of, 2
proximate cause,
method of cure, 7
Phrenitis, cause of, 33
what, 32
Diagnosis of, 34
mode of treatment, 35
Piles, Blind, 121. See Hæmorrhoids
Poisonous Wounds, 317
Polypus, what, 212
cause of, 213
Prognosis of, 214
treatment of, 215
how removed, 216
of the Nose, 217
of the Uterus, 215
in the Meatus Auditorius, 219
occasion Deafness. 375
Prolapsus Ani, 156. See Exania
of the Eye, 161
of the Uterus, 154
Prostate Gland, Scirrhus, 200
Ptergyium, 222
Punctured Wound, 301
Pus, its formation, 2
proper, favourable in healing Wounds, 300
within the Thorax, 41. See Empyema

R

- Radius, Fractured, 350

Ranula,

I N D E X.

- Ranula, what, 136
 mode of treatment, 137
- Reduction of Fractures, 339
 of Luxations, 169
 of Strangulated Hernia, 142
- Resolution, what, 2
 how attempted, 7
 failing what to have recourse to, 10
 not to be in every case attempted, 15
- Rhagas, how treated, 358
- Ribs, Fracture of, 354
 Luxation of, 177
- Rupture Crural, 148
 Inguinal, 143, see Bubonoccele
 Umbilical, 150
 Ischiatic, 152
 Vaginal, 153
 Congenial, 143
 Oval Hole, 151
- Ruptured Tendons, 356

S.

- Sarcocele, what, 193
 causes of, 194
 Prognosis of, 195
 Operation for, 196
- Sarcoma, what, 221
 Tonfillaris, 224
- Scapula fractured, 348
- Scarification of the Coats of the Eye, 31
 Tonsils, 17
- Scirrhus, what, 191
 how treated in general, 192
 Arising sometimes from Inflammation, 2
 of the Mammæ Diagnosis, 1979
 how treated, 118
 operation for, 99
 Testicle, 193, see Sarcocele
 of the Tongue, 202
 of the Lower Lip, 203
 of the Bulb of the Eye, 204
- Sclopetoplaga, danger from what, 318
 treatment of, 319

Scrophula

I N D E X.

- Scrophula Diagnosis of, 205
 - Tumours opening of, 207
 - suppuration of, 206
 - Articularis Diagnosis of, 208
 - Mode of Treatment, 209
- Scrophulous Ulcers, 270
- Scrotum Dropsy of 78, See Hydrocele
 - Anafarcial swelling of, treatment, 85
- Setons, what, 246. See Issue
- Sigaultian Operation, 422
- Sinous Ulcer, what, 255
 - Prognosis, 256
 - Treatment of, 257
- Slings for the Arm in Fracture, 349
- Spasms from Wounds, 301, 303
- Spermatic Cord encysted Dropsy of, 88
 - treated, 89
- Spina bifida, what, 102
 - Mode of Treatment, 103
- Spine Distortion of, 419
 - how treated, 420
 - Fracture of, 346. See Fracture
- Spiniculi Genu Articulī, 237
- Sphacelus, what, 360
 - how treated, 361
 - of the Penis, 362
- Splenocele, what, 143
- Staphyloma, what, 58
 - Treatment of, 59
- Steatoma, what, 134
 - how treated, 135
- Sternum, Fracture of, 344
- Strabismus, how treated, 414
- Suppression of Urine, 377, See Ischuria
- Suppuration, how attempted, 10
- Symptoms of Fractures, 337
 - of Luxation, 167
- Synizesis, what, 408
- Syphilitic Ulcer, 271

T.

- Teeth, derangement of, how treated, 416
 - cleaning of, 416

Teeth,

I N D E X.

- Teeth, hollow and carious, 278
 - drawing of, 279
 - artificial, what, to attend to 280
- Teething, what, 405
 - how relieved, 406
- Tenaculum, 238
- Tendons, Puncture of, 303
 - how treated, 304
 - Ruptures of, 356
- Testicle Scirrhus, 193. See Sarcocoele
 - inflamed, how treated, 16
 - Extirpation of, 196
- Thigh fractured, 351
 - Amputation of, 321
 - Luxated, 183
 - how treated, 185
 - Diagnosis of, 184
- Thlasis, what, 327, see Brain
- Thorax Wounds, Superficial Diagnosis, 310
 - penetrating its cavity, *ibid.*
 - how treated 311
 - Paracentesis of 64
- Thrombus, what, 119
- Thymus, what, 227
- Tibia fractured, 354
 - luxated, 187
- Tobacco Glyster of Smoke in Hernia, 142
- Tongue scirrhus and cancerous, 202
 - Amputation of, *ibid.*
- Tonsils enlarged, 224
 - Scarification of, 17
 - Inflammation of, *ibid.*
- Tourniquet, 238
- Trachea, Wounds of, 309
- Trepanning of the Cranium, 329
 - Sternum, 345
- Tumours Scirrhus, never to be partially removed, 193
- Tympanites, what, 45
 - Treatment of, 46

V.

- Vacillatio, what, 415
- Vaginal Hernia, what, 153

I N D E X.

- Valgus, what 417
- Varicocele, what, 117
 - Mode of Treatment, 118
- Varix, what, 115
 - Treatment of, 116
- Venereal Bubo, 12. See Bubo
- Ulcers, 271
- Venefection, 9
- Ventral Hernia, 147
- Vertebræ fractured, 346
- Verruca, how treated, 230
- Ulcer Simple, what, 244
 - cure in every case not proper, 245
 - how treated, 249
 - Discharge vitiated, how situated, 250
 - in general, Prognosis, 248
 - Sinuous, 255. Sinous
 - Fistulous, what, 258
 - in Ano, 259
 - termination of, 260
 - treatment of 261
 - operation for, 262
 - in perineo, 263
 - how treated, 264
- Ulcers, Fistulæ Lachrymalis, 265 (see Fistula)
- Scrophulous, 276
- Venereal, diagnosis, 271
 - how treated, 272
- Scorbutic, diagnosis, 281
 - cure of, 282
- Carcinomatous, 273
 - in the bladder, 264
 - of the Mouth, 253
 - of the Eye, 251 (see Ægilops)
- Umbilical Hernia, 150 (see Hernia)
- Ulna, fracture of, 350
- Urethra, imperforated, 366
 - Calculi, in, 390
- Urine, incontinency of, 288
 - treatment of, 289
 - suppression of, 377 (see Ischuria)
- Vesicles of Burns, when to be opened, 350
- Uterus, Scirrhus, 201
 - Prolapsus of, 155

I N D E X.

Uvula, tumefied and prolapsed, 159
how treated, 160

W.

Warts, cure of, 230

White Swellings of the Joints, 205
Scrophulus, 205
Rheumatic, 205
how treated, 209

Whitlow, what, 24
cause of, 25
treatment of, 26

Women, extracting the Stone from, 388

Wounds, simple, what, 294
prognosis of, 295
treatment of, 297
want of success in the cure, 299
how obviated, 300
of the Abdomen, superficial diagnosis, 312
treatment when penetrating, 313
of the Arteries from Aneurism, 111
Gunshot, danger from whence arising, 318
treatment of, 319
Contused, 306
treatment of, 307
Punctured, danger from whence, 301
how treated, 302
Lacerated, treatment of, 305
of the intestines, 313
of the Thorax, diagnosis, 310
treatment of, 311
of the Eye, dangers from whence arising, 315
Transverse of the Orbicularis muscle, 314
penetrating the Joints, 308
of the Trachea, 309
Wry Neck, operation for, 413

E R R A T A.

Wherever the word Prognosis occurs, previous to page 117, read *Prognosis*—p. 22, l. 23, for retiring, r. *returning*—p. 26, l. 7, after fails, insert *the*—p. 28, l. 5, for cure, r. *case*—p. 32, l. 13, for luscicles, r. *Vesicles*—p. 28, l. 9, for (Q. 28) r. (Q. 8).—p. 48, l. 12, for (Q. 20) r. (Q. 2)—p. 60, l. 13, for irritate to the, r. *irritate the*—p. 80, l. 18, for Staphylema, r. *Staphyloma*—p. 87, l. 14; p. 91, l. 22; and p. 93, l. 2, for dilation, r. *dilatation*—p. 93, l. 16; and p. 120, l. 16, for head, r. *heart*—p. 113, l. 20, after emptied, insert *the*—p. 128, 129, 130, for Extropium, r. *Ectropium*—p. 142, l. 4, for Treaks, r. *Freaks*—p. 149, l. 10, after have, insert *been*—p. 185, l. 2, for Hyocenoses, r. *Apoceneses*—p. 204, l. 1, for Bistay, r. *Bistory*, p. 209, l. 1, for remosa, r. *remora*—p. 214, for bone, r. *Cure*—p. 224, l. 2, for Seufluxus, r. *Serifluxus*—p. 247, l. 23, for injured, r. *of injuring*—p. 267, for Levater, r. *Levator*—p. 299, l. 25, for plunged into it, r. *plugged into the fissure*—p. 309, l. 17; p. 310, l. 1; p. 311, l. 11, for prostrate, r. *prostate*—p. 316, l. 25, for composed, r. *decomposed*—p. 320 l. 7 for excited, r. *executed*.

E R R A T A OF THE NOTES.

Page 30, for Lennert, r. *Sennert*—p. 31, for Purulis, r. *Parulis*—p. 36, for Horalius, r. *Horatius*—p. 39, *dele* Ophthalmia Sephiluca, *Bagliwi*.—p. 120, for Oniphaloceli, r. *Omphaloccele*—p. 126, for Dioners, r. *Dionis*—p. 234, for Hamonica, r. *Harmonica*—p. 128, for Blepharoptoris, r. *Blepharoptosis*—p. 151, for Platoris, r. *Platner*.

DIRECTIONS TO THE BINDER.

The TABLE to come immediately after page 12.

